

STRUCTURE SEARCH

=> d his 164

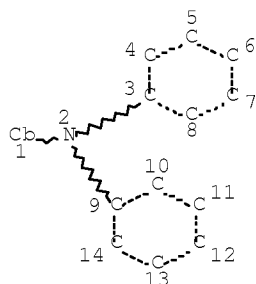
(FILE 'HCAPLUS' ENTERED AT 15:32:18 ON 22 JUL 2008)

L64 38 S L60 OR L63

=> d que stat 164

L3 (18405)SEA FILE=REGISTRY ABB=ON PLU=ON 3593.5/RID

L4 STR



NODE ATTRIBUTES:

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DEFAULT ECLEVEL IS LIMITED

ECOUNT IS E16 C AT 1

GRAPH ATTRIBUTES:

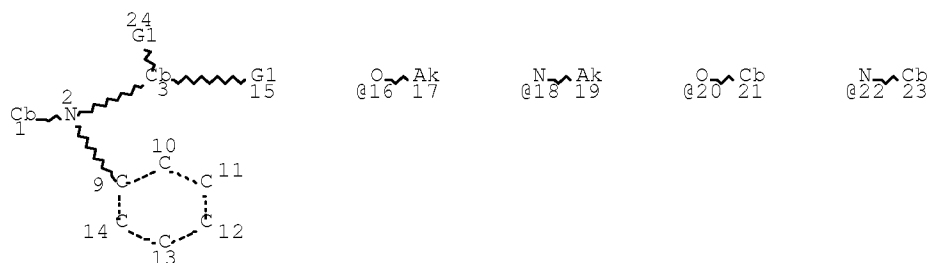
RING(S) ARE ISOLATED OR EMBEDDED

NUMBER OF NODES IS 14

STEREO ATTRIBUTES: NONE

L5 782 SEA FILE=REGISTRY SUB=L3 SSS FUL L4

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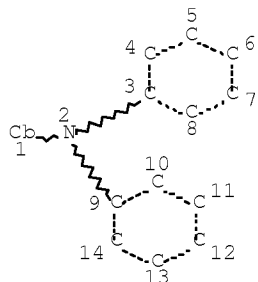
RING(S) ARE ISOLATED OR EMBEDDED

NUMBER OF NODES IS 19

STEREO ATTRIBUTES: NONE

10549801-265764-EIC 1700 SEARCH

L23 57 SEA FILE=REGISTRY SUB=L5 SSS FUL L21
 L31 QUE ABB=ON PLU=ON PY<2004 OR PRY<2004 OR AY<2004 OR
 MY<2004 OR REVIEW/DT
 L33 (18405)SEA FILE=REGISTRY ABB=ON PLU=ON 3593.5/RID
 L34 STR



NODE ATTRIBUTES:

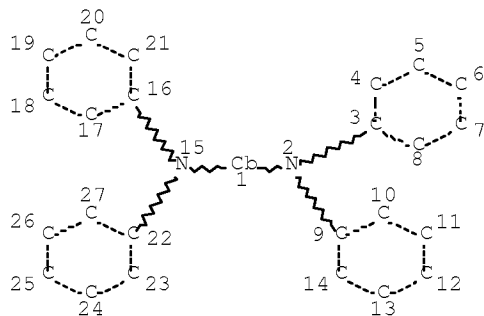
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 DEFAULT ECLEVEL IS LIMITED
 ECOUNT IS E16 C AT 1

GRAPH ATTRIBUTES:

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STEREO ATTRIBUTES: NONE

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 L36 (1474106)SEA FILE=HCAPLUS ABB=ON PLU=ON 73/SC,SX
 L37 QUE ABB=ON PLU=ON PY<2004 OR PRY<2004 OR AY<2004 OR
 MY<2004 OR REVIEW/DT
 L38 STR



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DEFAULT MLEVEL IS ATOM
 GGCAT IS PCY UNS AT 1
 DEFAULT ECLEVEL IS LIMITED
 ECOUNT IS E16 C AT 1

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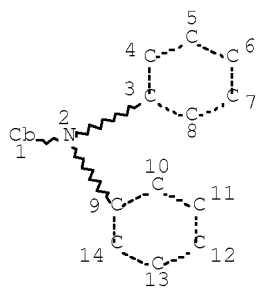
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 NUMBER OF NODES IS 27

STEREO ATTRIBUTES: NONE

L39 (199)SEA FILE=REGISTRY SUB=L35 SSS FUL L38
 L40 (71)SEA FILE=HCAPLUS ABB=ON PLU=ON L39
 L41 (47)SEA FILE=HCAPLUS ABB=ON PLU=ON L40 AND L37

10549801-265764-EIC 1700 SEARCH

L42 18 SEA FILE=HCAPLUS ABB=ON PLU=ON L41 AND L36
 L43 (18405)SEA FILE=REGISTRY ABB=ON PLU=ON 3593.5/RID
 L44 STR



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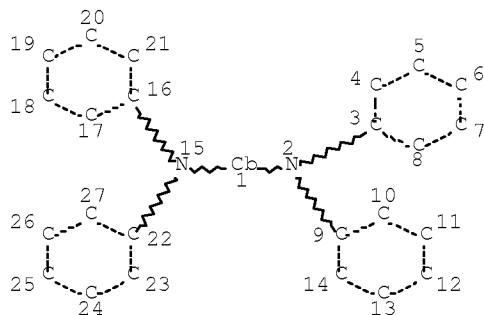
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 GGCAT IS PCY UNS AT 1
 DEFAULT ECLEVEL IS LIMITED
 ECOUNT IS E16 C AT 1

GRAPH ATTRIBUTES:

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 NUMBER OF NODES IS 14

STEREO ATTRIBUTES: NONE

L45 (782)SEA FILE=REGISTRY SUB=L43 SSS FUL L44
 L46 (1474106)SEA FILE=HCAPLUS ABB=ON PLU=ON 73/SC,SX
 L47 QUE ABB=ON PLU=ON PY<2004 OR PRY<2004 OR AY<2004 OR
 MY<2004 OR REVIEW/DT
 L48 STR



NODE ATTRIBUTES:

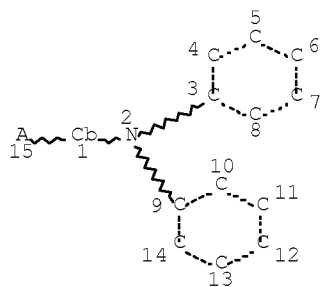
DEFAULT MLEVEL IS ATOM
 GGCAT IS PCY UNS AT 1
 DEFAULT ECLEVEL IS LIMITED
 ECOUNT IS E16 C AT 1

GRAPH ATTRIBUTES:

RING(S) ARE ISOLATED OR EMBEDDED
 NUMBER OF NODES IS 27

STEREO ATTRIBUTES: NONE

L49 (199)SEA FILE=REGISTRY SUB=L45 SSS FUL L48
 L50 STR



NODE ATTRIBUTES:

NSPEC IS RC AT 15
 DEFAULT MLEVEL IS ATOM
 GGCAT IS PCY UNS AT 1
 DEFAULT ECLEVEL IS LIMITED
 ECOUNT IS E16 C AT 1

GRAPH ATTRIBUTES:

RING(S) ARE ISOLATED OR EMBEDDED
 NUMBER OF NODES IS 15

STEREO ATTRIBUTES: NONE

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 L52 (58)SEA FILE=REGISTRY ABB=ON PLU=ON L51 NOT L49
 L53 (31)SEA FILE=HCAPLUS ABB=ON PLU=ON L52
 L54 (30)SEA FILE=HCAPLUS ABB=ON PLU=ON L53 AND L47
 L55 4 SEA FILE=HCAPLUS ABB=ON PLU=ON L54 AND L46
 L56 118 SEA FILE=HCAPLUS ABB=ON PLU=ON L5/P
 L57 80 SEA FILE=HCAPLUS ABB=ON PLU=ON L56 AND L31
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 L59 19 SEA FILE=HCAPLUS ABB=ON PLU=ON L58 AND L57
 L60 33 SEA FILE=HCAPLUS ABB=ON PLU=ON L42 OR L55 OR L59
 L61 37 SEA FILE=HCAPLUS ABB=ON PLU=ON L23
 L62 31 SEA FILE=HCAPLUS ABB=ON PLU=ON L61 AND L47
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 L64 38 SEA FILE=HCAPLUS ABB=ON PLU=ON L60 OR L63

10549801-265764-EIC 1700 SEARCH

STRUCTURE SEARCH RESULTS

=> d 164 1-38 ibib ed abs hitstr hitind

L64 ANSWER 1 OF 38 HCAPLUS COPYRIGHT 2008 ACS on STN
 ACCESSION NUMBER: 2005:589128 HCAPLUS Full-text
 DOCUMENT NUMBER: 143:86447
 TITLE: Light-emitting material for organic
 electroluminescent devices
 INVENTOR(S): Kubota, Mineyuki; Funahashi, Masakazu;
 Hosokawa, Chishio
 PATENT ASSIGNEE(S): Idemitsu Kosan Co., Ltd., Japan
 SOURCE: PCT Int. Appl., 71 pp.
 CODEN: PIXXD2
 DOCUMENT TYPE: Patent
 LANGUAGE: Japanese
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2005061656	A1	20050707	WO 2004-JP18964	2004 1213

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 ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP,
 KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD,
 MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL,
 PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR,
 TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW
 RW: BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM,
 ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH,
 CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT,
 LT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF,
 CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG
 EP 1696015 A1 20060830 EP 2004-807321

2004
1213

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 CN 1914293 A 20070214 CN 2004-80041655

2004
1213

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IN 2006CN02202 A 20070608 IN 2006-CN2202

2006
0619

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US 20070152565 A1 20070705 US 2006-583554

2006
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PRIORITY APPLN. INFO.: JP 2003-423317 A

2003
1219

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WO 2004-JP18964 W

2004
1213

ED Entered STN: 08 Jul 2005

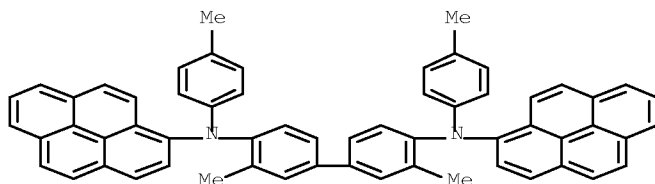
10549801-265764-EIC 1700 SEARCH

AB Disclosed is a light-emitting material for organic electroluminescent (EL) devices which is composed of an asym. anthracene derivative of a specific structure. Also disclosed are a material for organic EL devices and an organic EL device where an organic thin film layer composed of one or more layers including at least a light-emitting layer is interposed between a cathode and an anode. At least one layer of the organic thin film layer contains the material for organic EL devices by itself or as a component of a mixture. Consequently, the organic EL device has a high luminous efficiency and a long life. Also disclosed are a light-emitting material for organic EL devices and material for organic EL devices which enable to realize such an organic EL device.

IT 157357-98-7
 RL: DEV (Device component use); USES (Uses)
 (light-emitting material for organic electroluminescent devices)

RN 157357-98-7 HCAPLUS

CN [1,1'-Biphenyl]-4,4'-diamine, 3,3'-dimethyl-N,N'-bis(4-methylphenyl)-N,N'-di-1-pyrenyl- (9CI) (CA INDEX NAME)



IC ICM C09K011-06
 ICS H05B033-14; H05B033-22

CC 73-11 (Optical, Electron, and Mass Spectroscopy and Other Related Properties)

IT 2085-33-8, Alq3 136925-63-8 154853-83-5 157357-98-7 669016-16-4
 RL: DEV (Device component use); USES (Uses)
 (light-emitting material for organic electroluminescent devices)

REFERENCE COUNT: 14 THERE ARE 14 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L64 ANSWER 2 OF 38 HCAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 2005:297617 HCAPLUS Full-text

DOCUMENT NUMBER: 142:363444

TITLE: (N-carbazolyl)fluorenes or diarylaminofluorenes showing good heat resistance, and their organic electroluminescent devices

INVENTOR(S): Tanabe, Yoshimitsu; Tsukada, Hidetaka; Shimamura, Takehiko; Totani, Yoshiyuki

PATENT ASSIGNEE(S): Mitsui Chemicals Inc., Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 35 pp.
 CODEN: JKXXAF

DOCUMENT TYPE: Patent

LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2005089382	A	20050407	JP 2003-325769	2003 0918

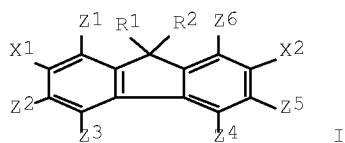
PRIORITY APPLN. INFO.:

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 JP 2003-325769

2003
0918

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OTHER SOURCE(S): MARPAT 142:363444
 ED Entered STN: 07 Apr 2005
 GI



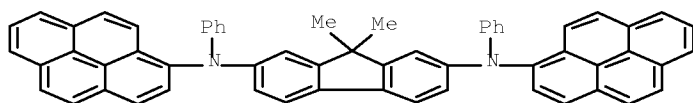
AB The fluorenes are I [X1 = (un)substituted N-carbazolyl, NAr1Ar2; X2 = NAr3Ar4; Ar1-Ar4 = aryl; ≥1 of Ar1-Ar4 = (un)substituted pyrenyl; Z1-Z6 = H, halo, OnZ; Z = (cyclo)alkyl, aryl; R1, R2 = H, (cyclo)alkyl, aryl, aralkyl; n = 0, 1]. Preferably, the I are used in hole transporting or emitter layers of the devices.

IT 669077-94-5P 849061-39-8P 849061-40-1P
 849061-41-2P 849061-42-3P 849061-43-4P
 849061-44-5P 849061-45-6P 849061-46-7P
 849061-47-8P 849061-48-9P 849061-49-0P

RL: DEV (Device component use); IMF (Industrial manufacture); PREP (Preparation); USES (Uses)
 (heat-resistant carbazolyfluorenes or diarylamino fluorenes for hole transporting or emitter layers for organic electroluminescent devices)

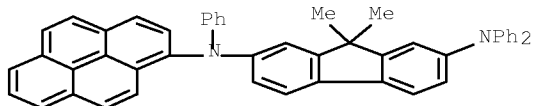
RN 669077-94-5 HCAPLUS

CN 9H-Fluorene-2,7-diamine, 9,9-dimethyl-N2,N7-diphenyl-N2,N7-di-1-pyrenyl- (CA INDEX NAME)



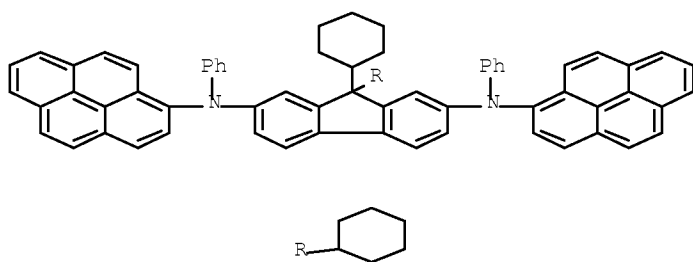
RN 849061-39-8 HCAPLUS

CN 9H-Fluorene-2,7-diamine, 9,9-dimethyl-N2,N2,N7-triphenyl-N7-1-pyrenyl- (CA INDEX NAME)



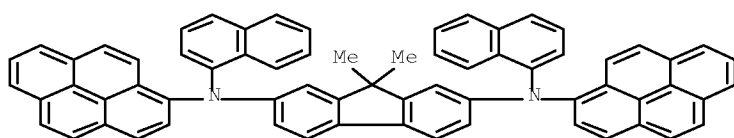
RN 849061-40-1 HCAPLUS

CN 9H-Fluorene-2,7-diamine, 9,9-dicyclohexyl-N2,N7-diphenyl-N2,N7-di-1-pyrenyl- (CA INDEX NAME)



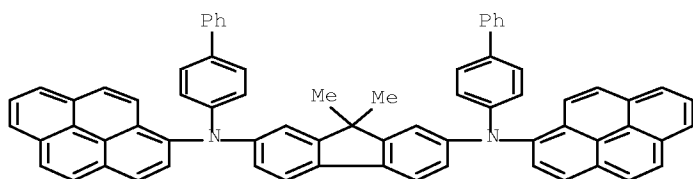
RN 849061-41-2 HCAPLUS

CN 9H-Fluorene-2,7-diamine, 9,9-dimethyl-N2,N7-di-1-naphthalenyl-N2,N7-di-1-pyrenyl- (CA INDEX NAME)



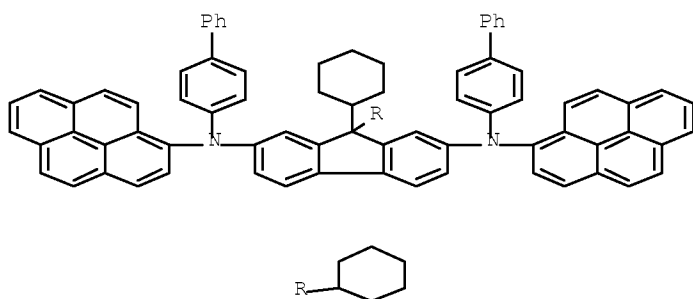
RN 849061-42-3 HCAPLUS

CN 9H-Fluorene-2,7-diamine, N2,N7-bis([1,1'-biphenyl]-4-yl)-9,9-dimethyl-N2,N7-di-1-pyrenyl- (CA INDEX NAME)



RN 849061-43-4 HCAPLUS

CN 9H-Fluorene-2,7-diamine, N2,N7-bis([1,1'-biphenyl]-4-yl)-9,9-dicyclohexyl-N2,N7-di-1-pyrenyl- (CA INDEX NAME)

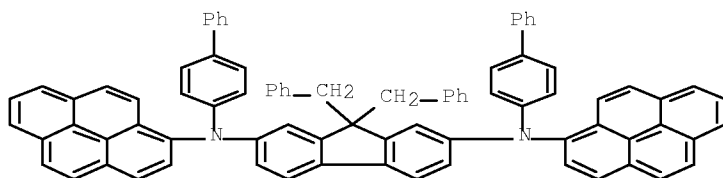


RN 849061-44-5 HCAPLUS

CN 9H-Fluorene-2,7-diamine, N2,N7-bis([1,1'-biphenyl]-4-yl)-9,9-

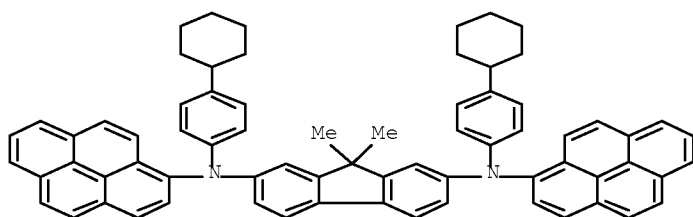
10549801-265764-EIC 1700 SEARCH

bis(phenylmethyl)-N2,N7-di-1-pyrenyl- (CA INDEX NAME)



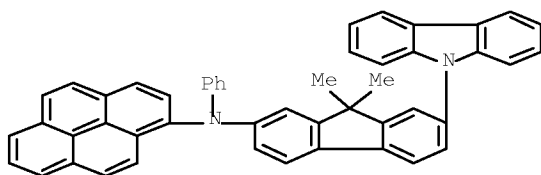
RN 849061-45-6 HCAPLUS

CN 9H-Fluorene-2,7-diamine, N2,N7-bis(4-cyclohexylphenyl)-9,9-dimethyl-N2,N7-di-1-pyrenyl- (CA INDEX NAME)



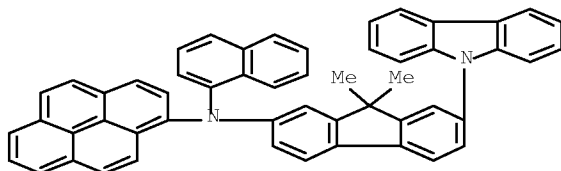
RN 849061-46-7 HCAPLUS

CN 1-Pyrenamine, N-[7-(9H-carbazol-9-yl)-9,9-dimethyl-9H-fluoren-2-yl]-N-phenyl- (CA INDEX NAME)



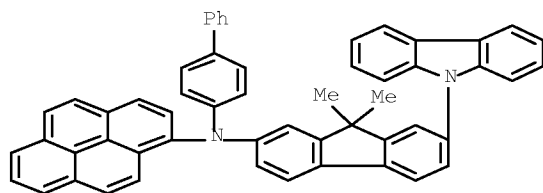
RN 849061-47-8 HCAPLUS

CN 1-Pyrenamine, N-[7-(9H-carbazol-9-yl)-9,9-dimethyl-9H-fluoren-2-yl]-N-1-naphthalenyl- (CA INDEX NAME)



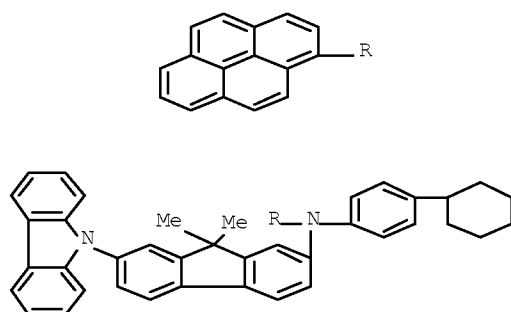
RN 849061-48-9 HCAPLUS

CN 1-Pyrenamine, N-[1,1'-biphenyl]-4-yl-N-[7-(9H-carbazol-9-yl)-9,9-dimethyl-9H-fluoren-2-yl]- (CA INDEX NAME)



RN 849061-49-0 HCAPLUS

CN 1-Pyrenamine, N-[7-(9H-carbazol-9-yl)-9,9-dimethyl-9H-fluoren-2-yl]-N-(4-cyclohexylphenyl)- (CA INDEX NAME)



IC ICM C07C211-61

ICS C07D209-86; C09K011-06; H05B033-14; H05B033-22

CC 73-11 (Optical, Electron, and Mass Spectroscopy and Other Related Properties)

Section cross-reference(s): 25, 27

IT 669077-94-5P 849061-39-8P 849061-40-1P

849061-41-2P 849061-42-3P 849061-43-4P

849061-44-5P 849061-45-6P 849061-46-7P

849061-47-8P 849061-48-9P 849061-49-0P

RL: DEV (Device component use); IMF (Industrial manufacture); PREP (Preparation); USES (Uses)

(heat-resistant carbazolyfluorenes or diarylamino fluorenes for hole transporting or emitter layers for organic electroluminescent devices)

L64 ANSWER 3 OF 38 HCAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 2005:138322 HCAPLUS Full-text

DOCUMENT NUMBER: 142:228449

TITLE: Hole-transporting polymers and organic electroluminescent devices containing the same

INVENTOR(S): Ishii, Toru; Mashimo, Kiyokazu; Agata, Takeshi; Moriyama, Hiroaki; Ozaki, Tadayoshi; Hirose, Eiichi; Okuda, Daisuke; Yoneyama, Hiroto; Seki, Mieko; Sato, Katsuhiro

PATENT ASSIGNEE(S): Fuji Xerox Co., Ltd., Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 21 pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent

LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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10549801-265764-EIC 1700 SEARCH

JP 2005042004

A

20050217

JP 2003-277732

2003

0722

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PRIORITY APPLN. INFO.:

JP 2003-277732

2003

0722

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ED Entered STN: 17 Feb 2005

AB The hole-transporting polymers involve repeating units of monomers which show hole-transporting property, have maximum optical absorption on the longer wave side than 360 nm in CH₂Cl₂, and the absolute value of reorientation energy [ABS(ΔH); the difference between the absolute value of ionizing energy necessary for forming cation radicals of the monomers and the absolute value of electron affinity generated when the cation radicals of the monomers become neutral mols.] ≤0.6 eV. Preferably, the polymer have, in the main chain backbones, tertiary aromatic amine structures, preferably represented by the general formula C₆H₄NArX(NArC₆H₄)_k (k = 0, 1; X = divalent aromatic group, heterocyclic group; Ar = monovalent aromatic group, heterocyclic group). The organic electroluminescent devices having large emission intensity and high emission efficiency contain the hole-transporting polymers in ≥1 of organic compds. layers disposed between a pair of electrodes, ≥1 of which is transparent or translucent.

IT 842172-04-7P 842172-06-9P

RL: DEV (Device component use); IMF (Industrial manufacture); PREP (Preparation); USES (Uses)
(hole-transporting polymers for organic EL devices)

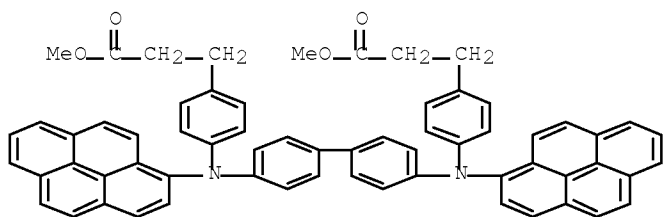
RN 842172-04-7 HCAPLUS

CN Benzenepropanoic acid, 4,4'-[[1,1'-biphenyl]-4,4'-diylbis[4,1-phenylene(1-pyrenylimino)]]bis-, dimethyl ester, polymer with 1,2-ethanediol (9CI) (CA INDEX NAME)

CM 1

CRN 842172-03-6

CMF C64 H48 N2 O4



CM 2

CRN 107-21-1

CMF C2 H6 O2

HO-CH₂-CH₂-OH

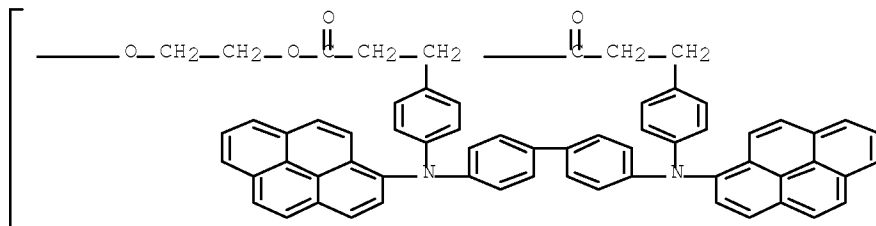
RN 842172-06-9 HCAPLUS

CN Poly[oxy-1,2-ethanediyl oxy(1-oxo-1,3-propanediyl)-1,4-phenylene(1-pyrenylimino)][1,1'-biphenyl]-4,4'-diyl(1-pyrenylimino)-1,4-

10549801-265764-EIC 1700 SEARCH

phenylene(3-oxo-1,3-propanediyl)] (9CI) (CA INDEX NAME)

PAGE 1-A



PAGE 1-B

IC ICM C08G063-685
 ICS C09K011-06; H05B033-14; H05B033-22
 CC 73-11 (Optical, Electron, and Mass Spectroscopy and
 Other Related Properties)
 Section cross-reference(s): 38
 IT 838896-34-7P 838896-35-8P 842172-04-7P
 842172-06-9P 842172-11-6P 842172-12-7P 842172-14-9P
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 RL: DEV (Device component use); IMF (Industrial manufacture); PREP
 (Preparation); USES (Uses)
 (hole-transporting polymers for organic EL devices)

L64 ANSWER 4 OF 38 HCAPLUS COPYRIGHT 2008 ACS on STN
 ACCESSION NUMBER: 2005:117087 HCAPLUS Full-text
 DOCUMENT NUMBER: 142:207357
 TITLE: Organic electroluminescent device based on
 pyrene derivatives and the pyrene derivatives
 INVENTOR(S): Li, Xiao-Chang Charles; Okamura, Yoshimasa;
 Ueno, Kazunori; Tashiro, Masashi; Tashiro,
 Hideki; Prakash, G. K. Surya
 PATENT ASSIGNEE(S): Canon Kabushiki Kaisha, Japan
 SOURCE: U.S., 17 pp.
 CODEN: USXXAM
 DOCUMENT TYPE: Patent
 LANGUAGE: English
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

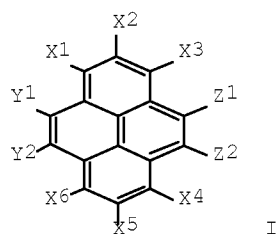
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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US 6852429	B1	20050208	US 2003-634755	

10549801-265764-EIC 1700 SEARCH

2003
0806US 20050031898
PRIORITY APPLN. INFO.:

A1 20050210

US 2003-634755

2003
0806OTHER SOURCE(S): MARPAT 142:207357
ED Entered STN: 10 Feb 2005
GI

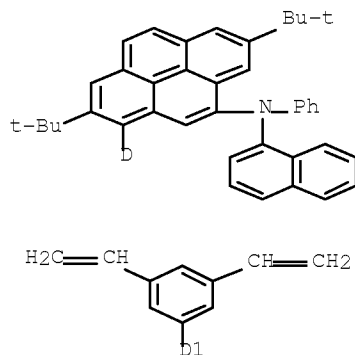
AB Pyrene-based compds. are described by the general formula I (Z1 = H, D, O, Si, Se, (un)substituted aryl, (un)substituted heteroaryl, (un)substituted aryl amine, or a combination thereof; Z2 = H or D; 1 of Y1 and Y2 = H, D, O, Si, Se, (un)substituted aryl, (un)substituted heteroaryl, (un)substituted aryl amine or a combination thereof, and the other of Y1 and Y2 = H or D; and X1-6 = independently selected H, D, alkyl, or aryl groups). Preferably, ≥ 1 of X1-6 = a bulky alkyl or aryl group such as tert-Bu and ≥ 1 of X1-6, Y1, Y2, Z1, and Z2 = D. Z1 and 1 of Y1 and Y2 may be hole injection and/or electron injection chromophores. Organic light-emitting devices incorporating the compds. in active, hole transport, and/or electron transport layers are also described. The pyrene based compound can serve directly to constitute the layers or as a host and/or dopant.

IT 839718-92-2

RL: DEV (Device component use); USES (Uses)
(organic electroluminescent devices based on pyrene derivs. and pyrene derivs.)

RN 839718-92-2 HCAPLUS

CN 4-Pyren-6-d-amine, 9(or 10)-(3,5-diethenylphenyl)-2,7-bis(1,1-dimethylethyl)-N-1-naphthalenyl-N-phenyl- (9CI) (CA INDEX NAME)



IC ICM H05B033-14

INCL 428690000; 428917000; 252301160; 252301350; 313504000; 313506000;

10549801-265764-EIC 1700 SEARCH

257040000; 257103000

CC 73-11 (Optical, Electron, and Mass Spectroscopy and
Other Related Properties)
Section cross-reference(s): 25, 76

IT 839713-18-7 839713-19-8 839713-20-1 839713-21-2
839713-22-3 839713-23-4 839713-24-5 839713-25-6
839713-26-7 839713-27-8 839718-92-2

RL: DEV (Device component use); USES (Uses)
(organic electroluminescent devices based on pyrene derivs. and
pyrene derivs.)

REFERENCE COUNT: 50 THERE ARE 50 CITED REFERENCES AVAILABLE
FOR THIS RECORD. ALL CITATIONS AVAILABLE
IN THE RE FORMAT

L64 ANSWER 5 OF 38 HCAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 2004:799549 HCAPLUS Full-text

DOCUMENT NUMBER: 141:304000

TITLE: Process for preparation of
1,6-bis(diphenylamino)pyrene derivatives as
electroluminescent devices

INVENTOR(S): Funahashi, Masakazu

PATENT ASSIGNEE(S): Idemitsu Kosan Co. Ltd., Japan

SOURCE: PCT Int. Appl., 51 pp.
CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2004083162	A1	20040930	WO 2004-JP2945	2004 0308

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ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP,
KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD,
MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL,
PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR,
TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW

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NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM,
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EP 1604974	A1	20051214	EP 2004-718430	2004 0308
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IN 2005CN02302	A	20070406	IN 2005-CN2302	2005 0919
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US 20070009758	A1	20070111	US 2005-549801	2005 1121
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**current
application**

10549801-265764-EIC 1700 SEARCH

PRIORITY APPLN. INFO.:

JP 2003-76772

A

2003

0320

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WO 2004-JP2945

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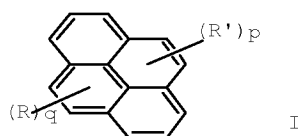
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0308

OTHER SOURCE(S): MARPAT 141:304000

ED Entered STN: 30 Sep 2004

GI



AB This invention pertains to a method for producing (diphenylamino)pyrene derivs. I [wherein R = H, (un)substituted alkyl, aryl, aralkyl, etc.; R' = (un)substituted diphenylamino; q = 1-9; p = 1-9; with limitation of p + q < 10], which are useful as electroluminescent devices. For example, 1,6-dibromopyrene was reacted with 4-isopropyldiphenylamine in toluene in the presence of Pd(OAc)₂, t-Bu₃P, and t-BuONa to give 1,6-bis(4-isopropyldiphenylamino)pyrene. I were tested as organic electroluminescent devices which have a long life and emit a blue color at a high luminescence efficiency.

IT 722498-84-2P 764657-23-0P 764657-24-1P

764657-25-2P 764657-26-3P 764657-27-4P

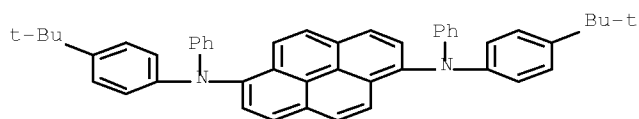
RL: IMF (Industrial manufacture); SPN (Synthetic preparation);

PREP (Preparation)

(preparation of bis(diphenylamino)pyrene derivs. as electroluminescent devices)

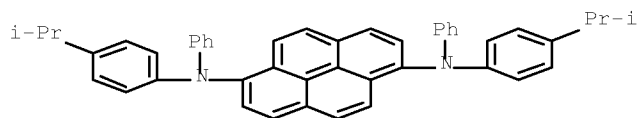
RN 722498-84-2 HCAPLUS

CN 1,6-Pyrenediamine, N1,N6-bis[4-(1,1-dimethylethyl)phenyl]-N1,N6-diphenyl- (CA INDEX NAME)



RN 764657-23-0 HCAPLUS

CN 1,6-Pyrenediamine, N1,N6-bis[4-(1-methylethyl)phenyl]-N1,N6-diphenyl- (CA INDEX NAME)

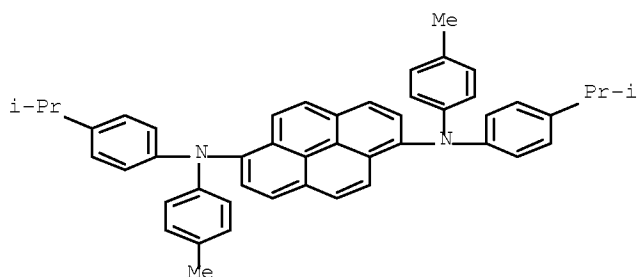


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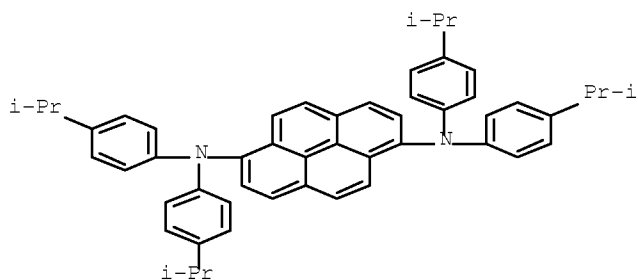
10549801-265764-EIC 1700 SEARCH

methylphenyl)- (CA INDEX NAME)



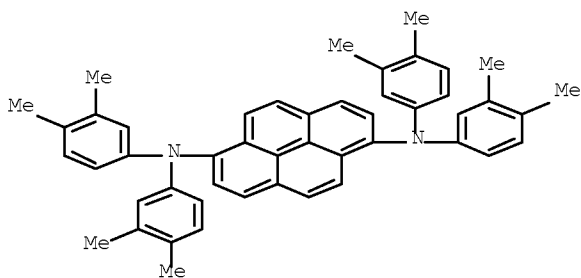
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CN 1,6-Pyrenediimine, N1,N1,N6,N6-tetrakis[4-(1-methylethyl)phenyl]-
(CA INDEX NAME)



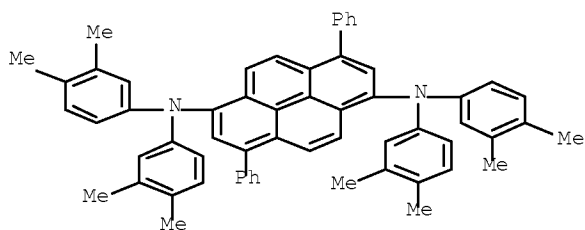
RN 764657-26-3 HCAPLUS

CN 1,6-Pyrenediimine, N1,N1,N6,N6-tetrakis(3,4-dimethylphenyl)- (CA
INDEX NAME)



RN 764657-27-4 HCAPLUS

CN 1,6-Pyrenediimine, N1,N1,N6,N6-tetrakis(3,4-dimethylphenyl)-3,8-
diphenyl- (CA INDEX NAME)



IC ICM C07C211-61
ICS H05B033-14
CC 73-5 (Optical, Electron, and Mass Spectroscopy and Other
Related Properties)
Section cross-reference(s): 25
IT 722498-84-2P 764657-23-0P 764657-24-1P
764657-25-2P 764657-26-3P 764657-27-4P
RL: IMF (Industrial manufacture); SPN (Synthetic preparation);
PREP (Preparation)
(preparation of bis(diphenylamino)pyrene derivs. as
electroluminescent devices)
REFERENCE COUNT: 9 THERE ARE 9 CITED REFERENCES AVAILABLE
FOR THIS RECORD. ALL CITATIONS AVAILABLE
IN THE RE FORMAT

L64 ANSWER 6 OF 38 HCAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 2004:568210 HCAPLUS Full-text
DOCUMENT NUMBER: 141:131023
TITLE: Organic electroluminescent devices employing
blue-emitting dopants based on amine
derivatives of pyrene
INVENTOR(S): Seo, Jeong Dae; Lee, Kyung Hoon; Kim, Hee
Jung; Park, Chun Gun; Oh, Hyoung Yun
PATENT ASSIGNEE(S): Lg Electronics Inc., S. Korea
SOURCE: Eur. Pat. Appl., 43 pp.
CODEN: EPXXDW
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 1437395	A2	20040714	EP 2003-29661	2003 1223
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US 20040137270	A1	20040715	US 2003-743778	2003 1224
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JP 2004204238	A	20040722	JP 2003-428297	2003 1224
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10549801-265764-EIC 1700 SEARCH

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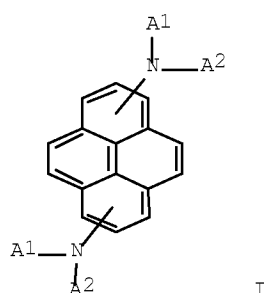
PRIORITY APPLN. INFO.: <--
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 KR 2003-20465 A
 2003
 0401

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 JP 2003-428297 A3
 2003
 1224

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OTHER SOURCE(S): MARPAT 141:131023
 ED Entered STN: 16 Jul 2004
 GI



AB Organic electroluminescent devices are described which comprise a substrate; a first and second electrodes formed on the substrate; an emitting layer formed between the first electrode and the second electrode, the emitting layer having a plurality of materials one of which being a blue-emitting dopant with general formula (I), where at least one of A1 and A2 is selected from a substituted or non-substituted aromatic group, a heterocyclic group, an aliphatic group and hydrogen. The materials forming the emitting layer together with the material of I may have a chemical formula B1-X-B2 where X is selected from a group consisting of naphthalene, anthracene, phenanthrene, pyrene, perylene, and quinoline and at least 1 of the B1 and B2 is selected from a group consisting of aryl, alkylaryl, alkoxyaryl, arylaminoaryl and alkylaminoaryl.

IT 76656-51-4 143141-30-4 163969-53-7
 663954-33-4 668019-96-3 722498-77-3
 722498-78-4 722498-79-5 722498-80-8
 722498-81-9 722498-82-0 722498-83-1
 722498-84-2 722498-85-3 722498-86-4
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 722498-93-3 722498-94-4 722498-95-5
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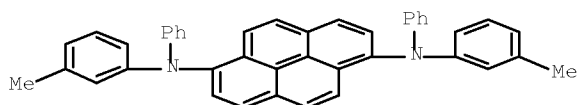
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 722499-45-8 722499-46-9 722499-47-0
 722499-48-1 722499-49-2

RL: DEV (Device component use); MOA (Modifier or additive use);
 USES (Uses)

(blue-emitting dopant; organic electroluminescent devices
 employing blue-emitting dopants based on amine derivs. of
 pyrene)

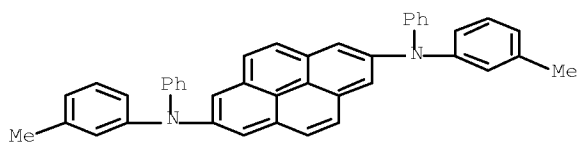
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 (CA INDEX NAME)



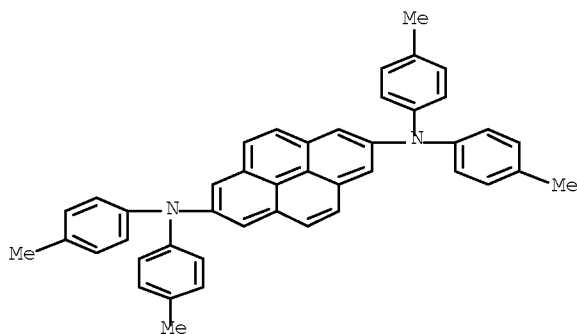
RN 143141-30-4 HCAPLUS

CN 2,7-Pyrenediamine, N,N'-bis(3-methylphenyl)-N,N'-diphenyl- (9CI)
 (CA INDEX NAME)



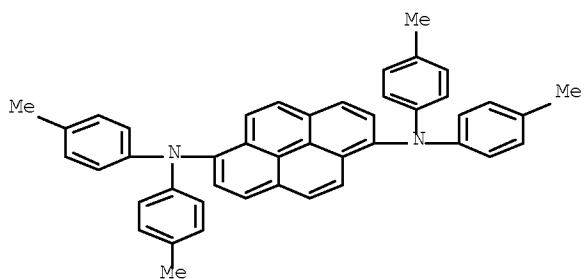
RN 163969-53-7 HCAPLUS

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 INDEX NAME)

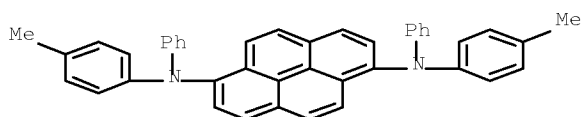


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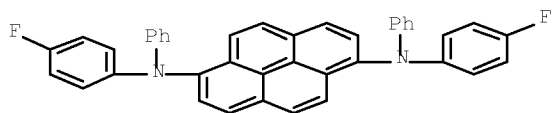
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 INDEX NAME)



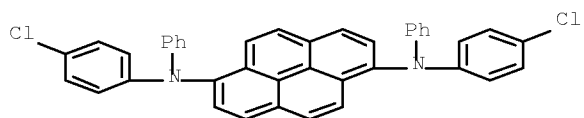
RN 668019-96-3 HCAPLUS
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 INDEX NAME)



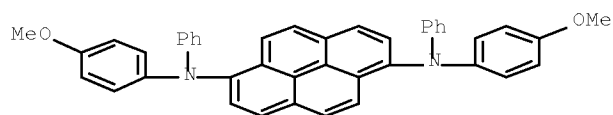
RN 722498-77-3 HCAPLUS
 CN 1,6-Pyrenediamine, N1,N6-bis(4-fluorophenyl)-N1,N6-diphenyl- (CA
 INDEX NAME)



RN 722498-78-4 HCAPLUS
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 INDEX NAME)

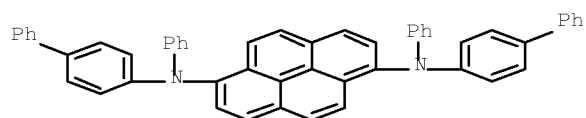


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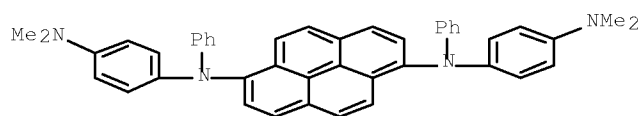
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(CA INDEX NAME)



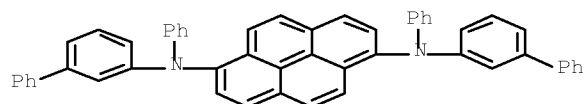
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(CA INDEX NAME)



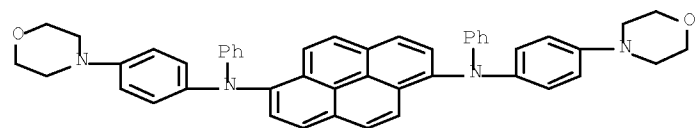
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(CA INDEX NAME)



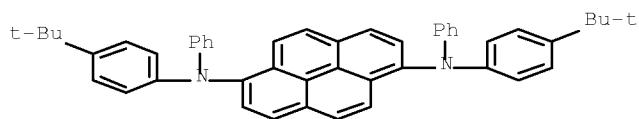
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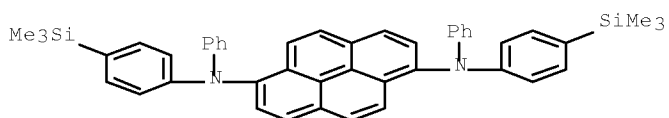


RN 722498-84-2 HCAPLUS

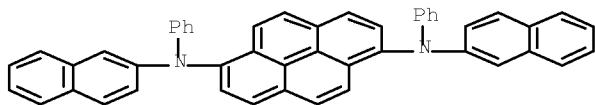
CN 1,6-Pyrenediamine, N1,N6-bis[4-(1,1-dimethylethyl)phenyl]-N1,N6-diphenyl-
(CA INDEX NAME)



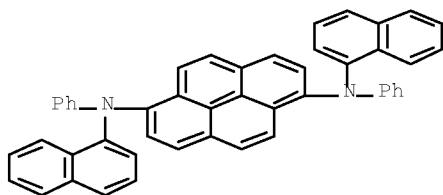
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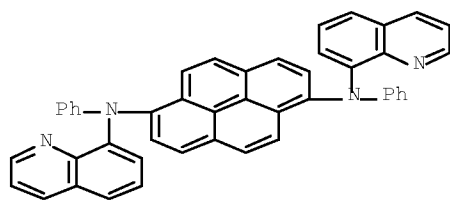
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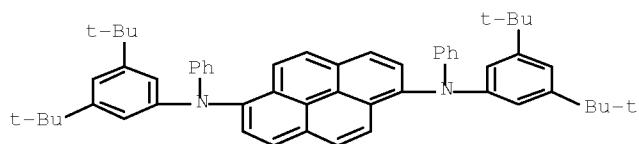


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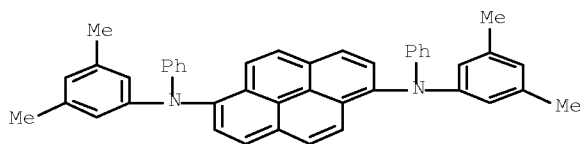
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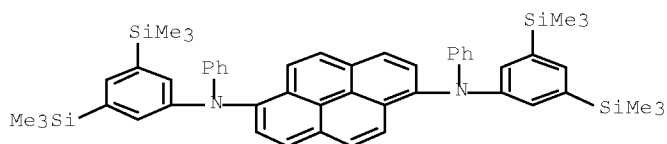
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(CA INDEX NAME)



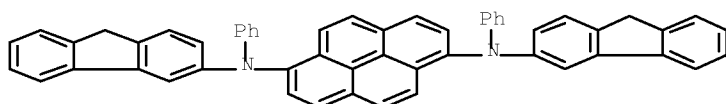
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CN 1,6-Pyrenediamine, N1,N6-bis[3,5-bis(trimethylsilyl)phenyl]-N1,N6-
diphenyl- (CA INDEX NAME)



RN 722498-92-2 HCAPLUS

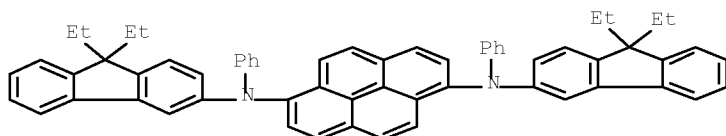
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10549801-265764-EIC 1700 SEARCH

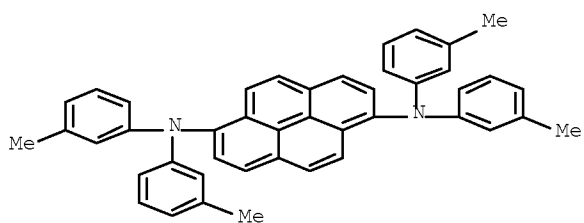
RN 722498-93-3 HCAPLUS

CN 1,6-Pyrenediamine, N1,N6-bis(9,9-diethyl-9H-fluoren-3-yl)-N1,N6-diphenyl- (CA INDEX NAME)



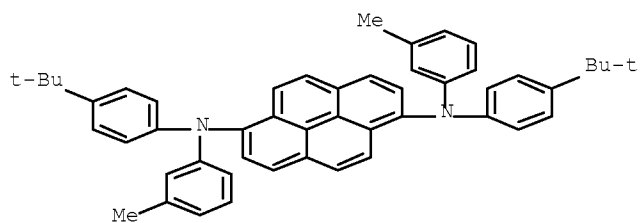
RN 722498-94-4 HCAPLUS

CN 1,6-Pyrenediamine, N1,N1,N6,N6-tetrakis(3-methylphenyl)- (CA INDEX NAME)



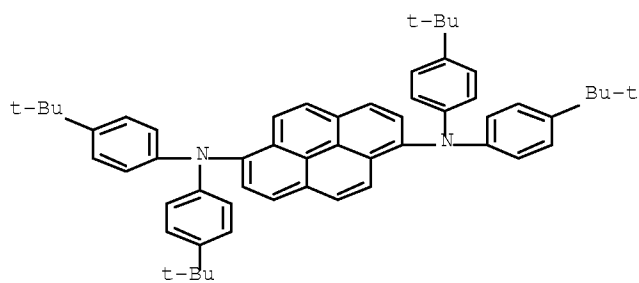
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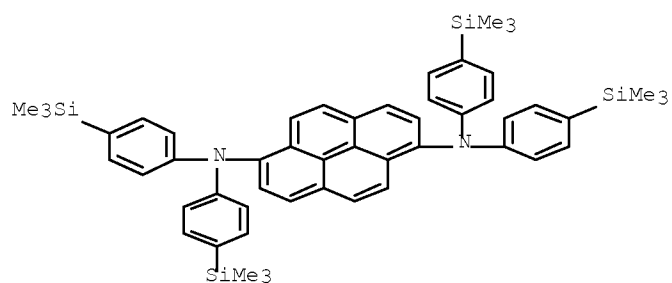
RN 722498-97-7 HCAPLUS

CN 1,6-Pyrenediamine, N1,N1,N6,N6-tetrakis[4-(1,1-dimethylethyl)phenyl]- (CA INDEX NAME)



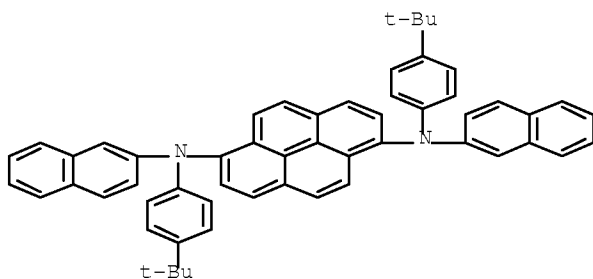
RN 722498-98-8 HCAPLUS

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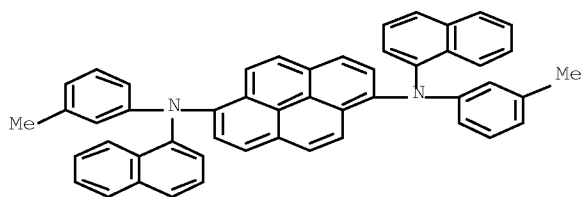
RN 722499-00-5 HCAPLUS

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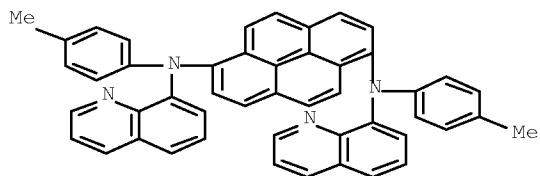
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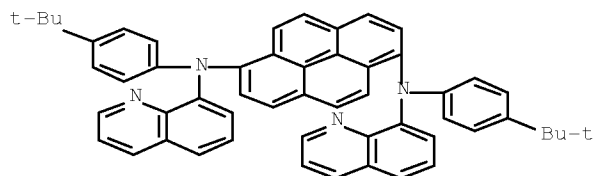
RN 722499-02-7 HCAPLUS

CN 1,6-Pyrenediamine, N1,N6-bis(4-methylphenyl)-N1,N6-di-8-quinolinyl-
(CA INDEX NAME)



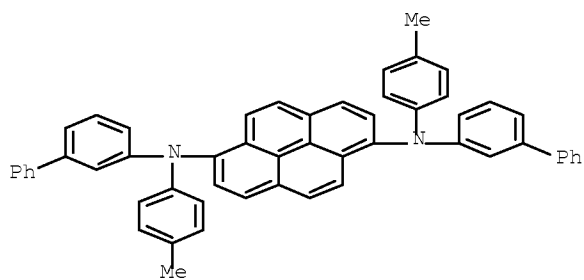
RN 722499-03-8 HCAPLUS

CN 1,6-Pyrenediamine, N1,N6-bis[4-(1,1-dimethylethyl)phenyl]-N1,N6-di-
8-quinolinyl- (CA INDEX NAME)



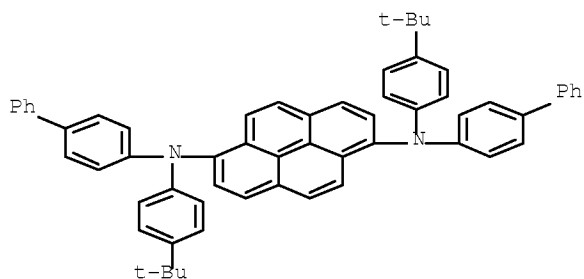
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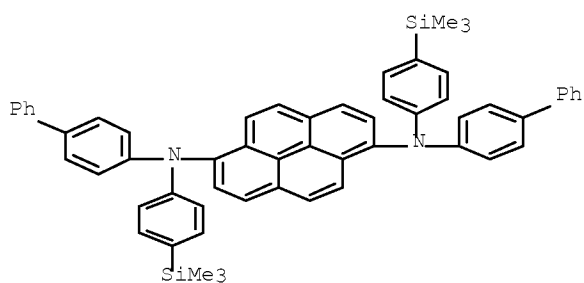


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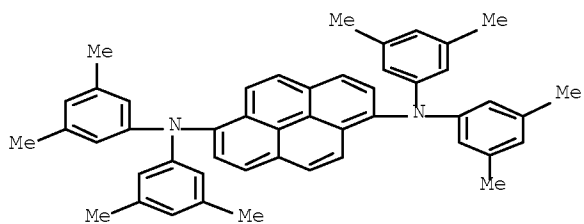
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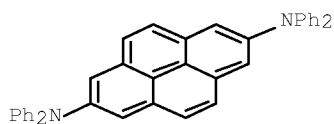
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RN 722499-07-2 HCAPLUS
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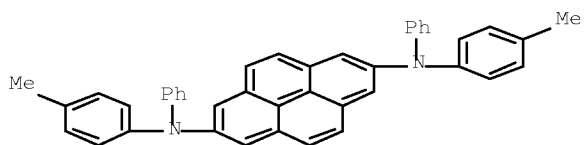


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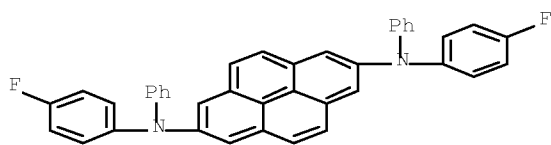


10549801-265764-EIC 1700 SEARCH

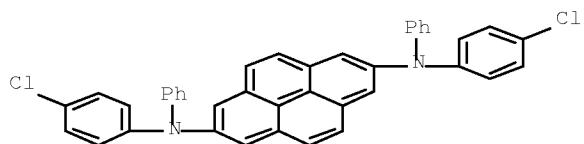
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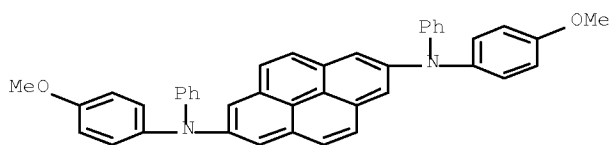
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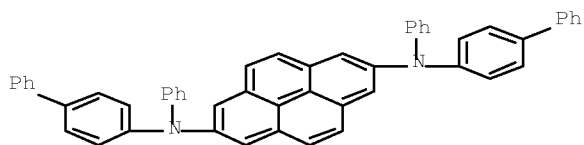
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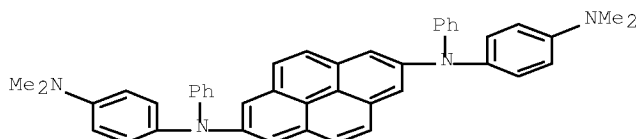


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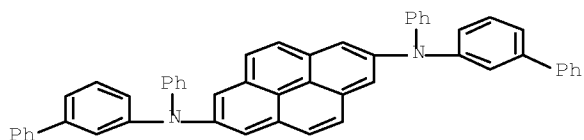
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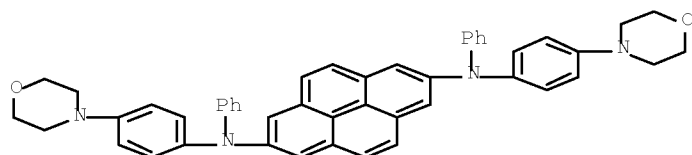
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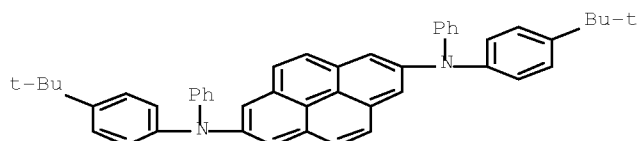
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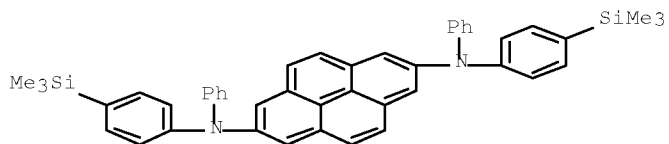
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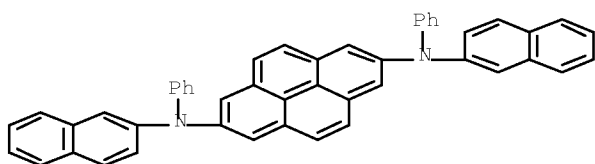


10549801-265764-EIC 1700 SEARCH

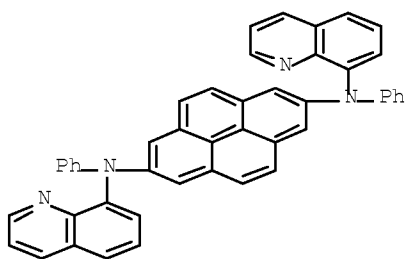
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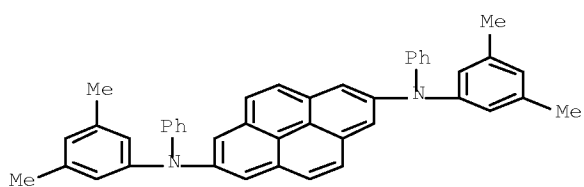
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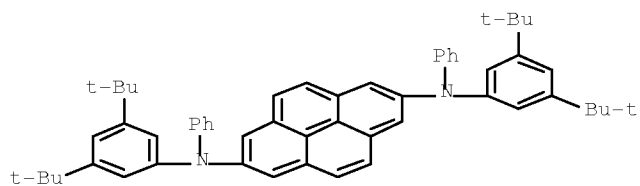
RN 722499-29-8 HCAPLUS
CN 2,7-Pyrenediamine, N2,N7-diphenyl-N2,N7-di-8-quinolinyl- (CA INDEX NAME)



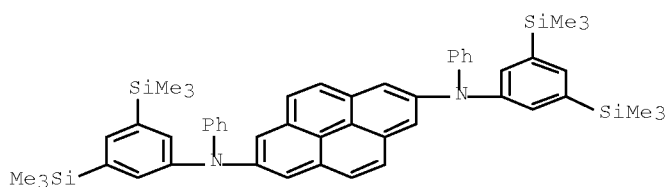
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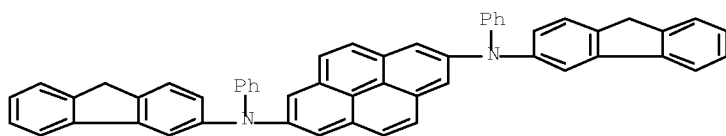
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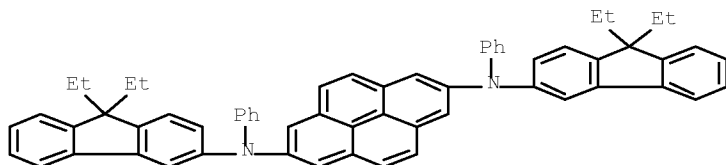
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diphenyl- (CA INDEX NAME)

RN 722499-33-4 HCAPLUS

CN 2,7-Pyrenediamine, N2,N7-di-9H-fluoren-3-yl-N2,N7-diphenyl- (CA
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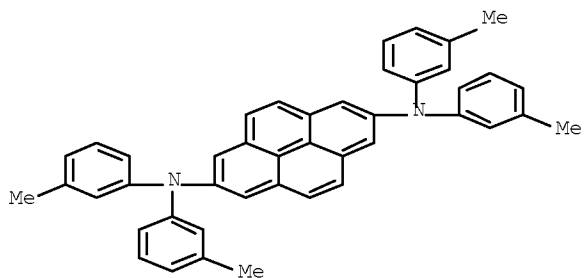
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CN 2,7-Pyrenediamine, N2,N7-bis(9,9-diethyl-9H-fluoren-3-yl)-N2,N7-
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10549801-265764-EIC 1700 SEARCH

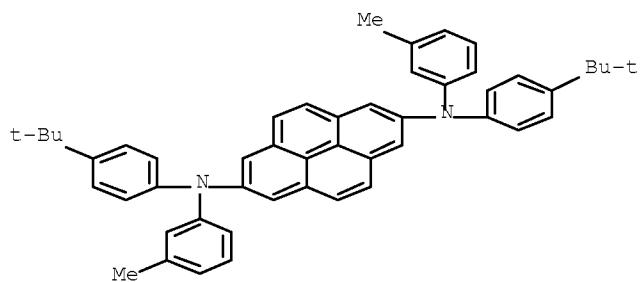
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CN 2,7-Pyrenediamine, N2,N2,N7,N7-tetrakis(3-methylphenyl)- (CA INDEX NAME)



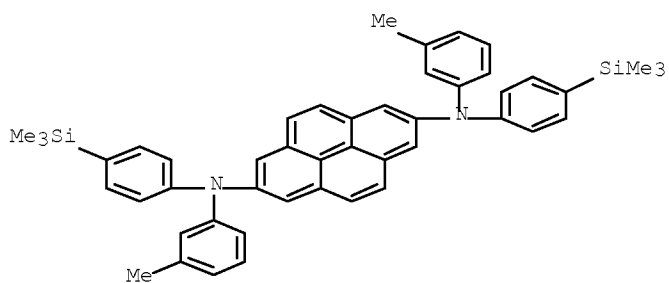
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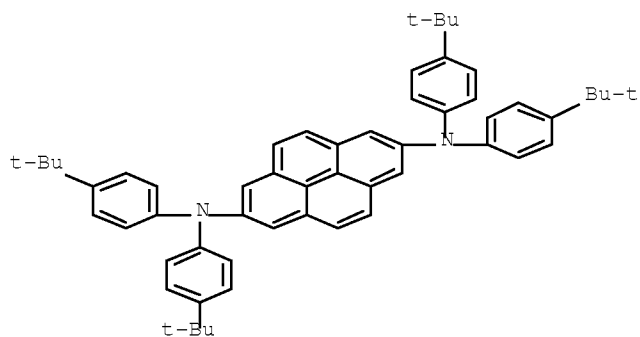
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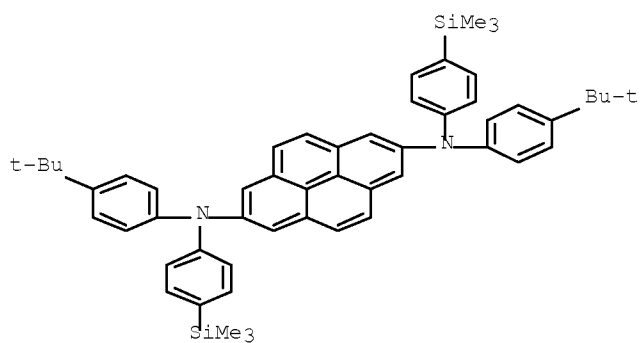
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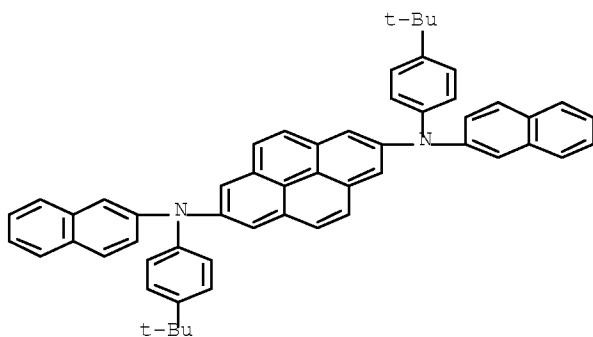
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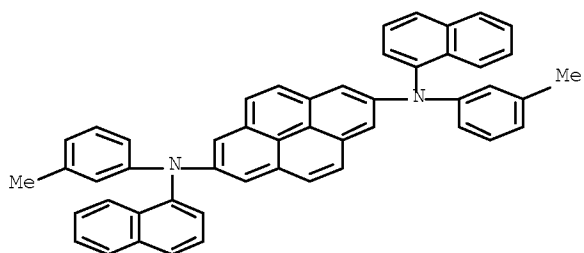
RN 722499-42-5 HCAPLUS

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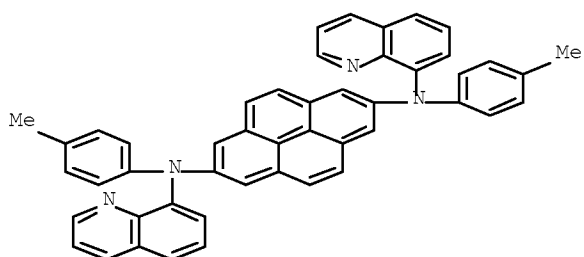


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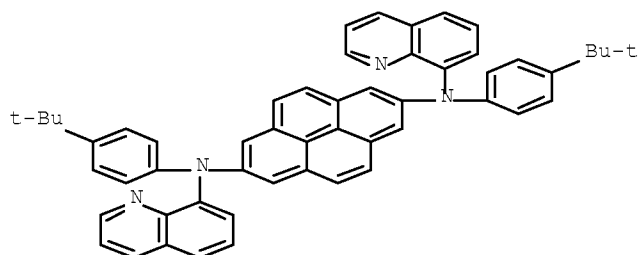
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RN 722499-44-7 HCAPLUS

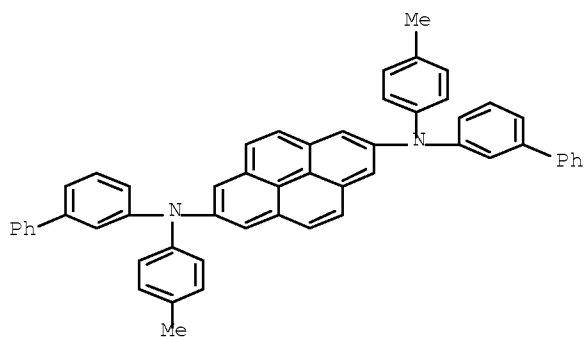
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(CA INDEX NAME)

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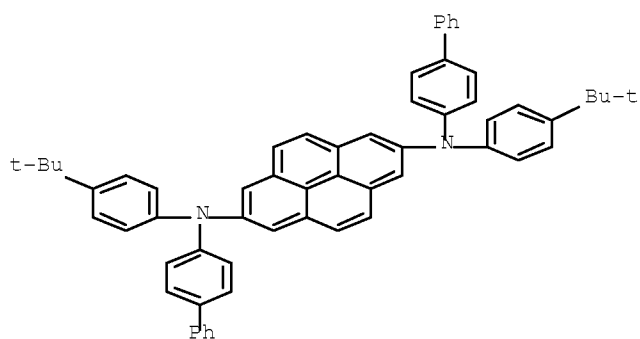
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RN 722499-46-9 HCAPLUS

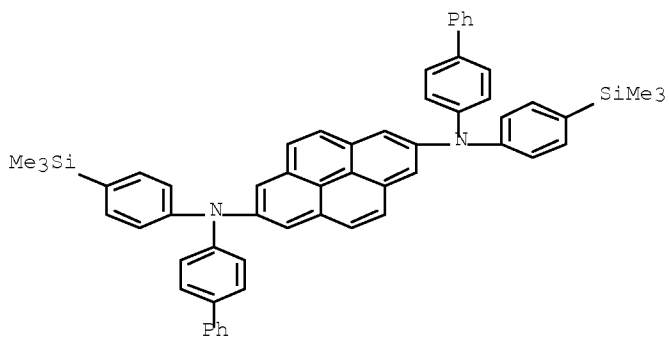
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(CA INDEX NAME)



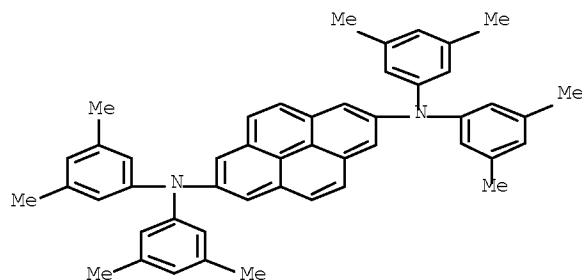
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RN 722499-48-1 HCAPLUS
 CN 2,7-Pyrenediamine, N2,N7-bis([1,1'-biphenyl]-4-yl)-N2,N7-bis[4-(trimethylsilyl)phenyl]- (CA INDEX NAME)



RN 722499-49-2 HCAPLUS
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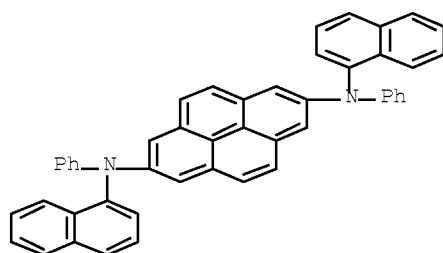


IT 722498-96-6

RL: DEV (Device component use); MOA (Modifier or additive use);
 PRP (Properties); USES (Uses)
 (blue-emitting dopant; organic electroluminescent devices
 employing blue-emitting dopants based on amine derivs. of
 pyrene)

RN 722498-96-6 HCAPLUS

CN 2,7-Pyrenediamine, N2,N7-di-1-naphthalenyl-N2,N7-diphenyl- (CA
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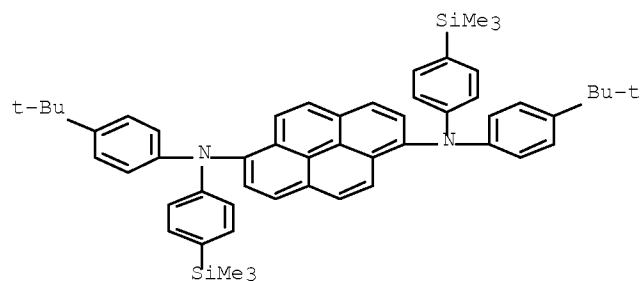


IT 722498-52-4P

RL: DEV (Device component use); MOA (Modifier or additive use);
 PRP (Properties); SPN (Synthetic preparation); PREP (Preparation);
 USES (Uses)
 (blue-emitting dopant; organic electroluminescent devices
 employing blue-emitting dopants based on amine derivs. of
 pyrene)

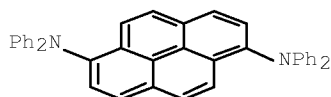
RN 722498-52-4 HCAPLUS

CN 1,6-Pyrenediamine, N1,N6-bis[4-(1,1-dimethylethyl)phenyl]-N1,N6-
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10549801-265764-EIC 1700 SEARCH

IT 76656-53-6P
 RL: SPN (Synthetic preparation); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
 (organic electroluminescent devices employing blue-emitting dopants based on amine derivs. of pyrene)
 RN 76656-53-6 HCAPLUS
 CN 1,6-Pyrenediamine, N1,N1,N6,N6-tetraphenyl- (CA INDEX NAME)



IC ICM C09K011-06
 CC 73-11 (Optical, Electron, and Mass Spectroscopy and Other Related Properties)
 Section cross-reference(s): 22, 25, 76
 IT 76656-51-4 143141-30-4 163969-53-7
 663954-33-4 668019-96-3 722498-76-2
 722498-77-3 722498-78-4 722498-79-5
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 RL: DEV (Device component use); MOA (Modifier or additive use);
 USES (Uses)
 (blue-emitting dopant; organic electroluminescent devices employing blue-emitting dopants based on amine derivs. of pyrene)
 IT 722498-96-6
 RL: DEV (Device component use); MOA (Modifier or additive use);
 PRP (Properties); USES (Uses)
 (blue-emitting dopant; organic electroluminescent devices employing blue-emitting dopants based on amine derivs. of pyrene)
 IT 722498-52-4P 722498-53-5P 722498-55-7P
 RL: DEV (Device component use); MOA (Modifier or additive use);
 PRP (Properties); SPN (Synthetic preparation); PREP (Preparation);
 USES (Uses)
 (blue-emitting dopant; organic electroluminescent devices employing blue-emitting dopants based on amine derivs. of

10549801-265764-EIC 1700 SEARCH

pyrene)
 IT 76656--53--6P
 RL: SPN (Synthetic preparation); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
 (organic electroluminescent devices employing blue-emitting dopants based on amine derivs. of pyrene)

L64 ANSWER 7 OF 38 HCAPLUS COPYRIGHT 2008 ACS on STN
 ACCESSION NUMBER: 2004:217178 HCAPLUS Full-text
 DOCUMENT NUMBER: 140:261500
 TITLE: Pyrenes as dopants for green-emitting organic electroluminescent devices and displays
 INVENTOR(S): Toyama, Wataru; Sato, Hiroyuki; Matsuura, Azuma; Narisawa, Toshiaki
 PATENT ASSIGNEE(S): Fujitsu Ltd., Japan
 SOURCE: Jpn. Kokai Tokkyo Koho, 43 pp.
 CODEN: JKXXAF
 DOCUMENT TYPE: Patent
 LANGUAGE: Japanese
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO. -----	KIND ----	DATE -----	APPLICATION NO. -----	DATE
JP 2004083507	A	20040318	JP 2002-248378	2002 0828
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JP 4060669	B2	20080312		
KR 2004019885	A	20040306	KR 2003-54519	2003 0807
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TW 252056	B	20060321	TW 2003-92121616	2003 0807
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US 20040053069	A1	20040318	US 2003-636580	2003 0808
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EP 1403354	A1	20040331	EP 2003-18120	2003 0808
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R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, SK				
CN 1487778	A	20040407	CN 2003-153303	2003 0808

PRIORITY APPLN. INFO.: JP 2002-248378 A
 2002
 0828

OTHER SOURCE(S): MARPAT 140:261500

ED Entered STN: 18 Mar 2004

AB The pyrenes have substituents NR1R2 (R1, R2 = H, substituent) on position 1, 3, 6, and 8. The devices and displays have high green luminescence intensity and efficiency.

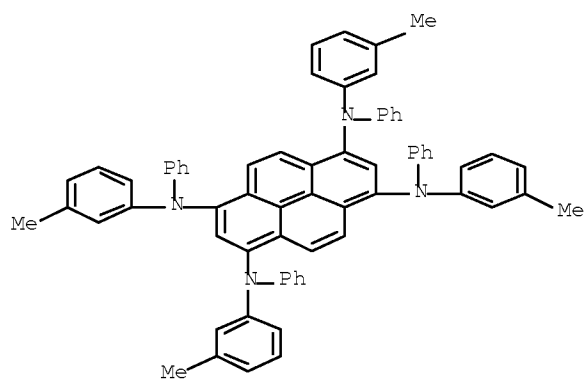
IT 671212-46-7P 671212-47-8P 671212-48-9P

RL: DEV (Device component use); IMF (Industrial manufacture); MOA (Modifier or additive use); PREP (Preparation); USES (Uses)
 (manufacture of 1,3,6,8-substituted pyrenes as dopants for green-emitting organic electroluminescent devices and displays)

RN 671212-46-7 HCAPLUS

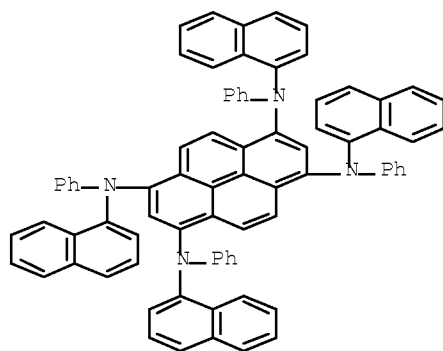
10549801-265764-EIC 1700 SEARCH

CN 1,3,6,8-Pyrenetetramine, N1,N3,N6,N8-tetrakis(3-methylphenyl)-
N1,N3,N6,N8-tetraphenyl- (CA INDEX NAME)



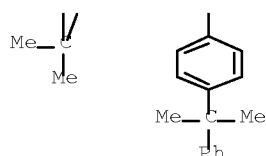
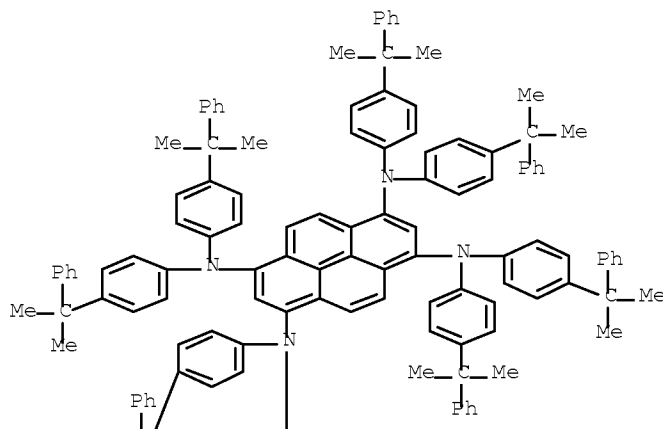
RN 671212-47-8 HCAPLUS

CN 1,3,6,8-Pyrenetetramine, N1,N3,N6,N8-tetra-1-naphthalenyl-
N1,N3,N6,N8-tetraphenyl- (CA INDEX NAME)



RN 671212-48-9 HCAPLUS

CN Benzo[def]phenanthrene-1,3,6,8-tetramine, N1,N1,N3,N3,N6,N6,N8,N8-
octakis[4-(1-methyl-1-phenylethyl)phenyl]- (CA INDEX NAME)



IC ICM C07C211-61
 ICS C09K011-06; H05B033-14; H05B033-22
 CC 74-13 (Radiation Chemistry, Photochemistry, and Photographic and
 Other Reprographic Processes)
 Section cross-reference(s): 25, 73
 IT 671212-46-7P 671212-47-8P 671212-48-9P
 RL: DEV (Device component use); IMF (Industrial manufacture); MOA
 (Modifier or additive use); PREP (Preparation); USES (Uses)
 (manufacture of 1,3,6,8-substituted pyrenes as dopants for
 green-emitting organic electroluminescent devices and displays)

L64 ANSWER 8 OF 38 HCAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 2004:198497 HCAPLUS Full-text

DOCUMENT NUMBER: 140:225545

TITLE: Phenylanthracenes for blue-emitting organic
 electroluminescent devices having high
 luminescent intensity and efficiency

INVENTOR(S): Kawamura, Hisayuki

PATENT ASSIGNEE(S): Idemitsu Kosan Co., Ltd., Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 24 pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent

LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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JP 2004075580	A	20040311	JP 2002-235538	

10549801-265764-EIC 1700 SEARCH

2002
0813

<--

JP 4065161 B2 20080319
PRIORITY APPLN. INFO.: JP 2002-2355382002
0813

<--

OTHER SOURCE(S): MARPAT 140:225545

ED Entered STN: 11 Mar 2004

AB The phenylanthracenes are A1LA2 (I) (A1, A2 = phenylanthryl, diphenylanthryl; L = C_≥8 polycyclic alicyclic group; A1 and A2 link via different atoms of L). Organic electroluminescent devices have emitter or hole-transporting layers containing I.

IT 663954-33-4

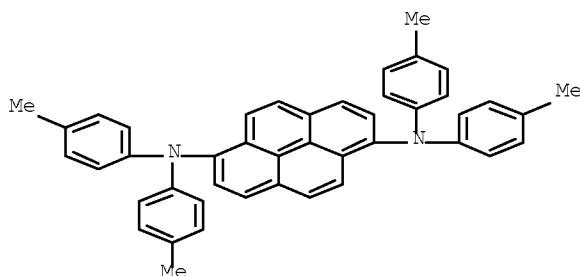
RL: DEV (Device component use); MOA (Modifier or additive use);

USES (Uses)

(dopants; polycyclic alicyclic compds. bearing phenylanthracene groups as emitters or hole transporting materials for blue-emitting organic electroluminescent devices)

RN 663954-33-4 HCAPLUS

CN 1,6-Pyrenediamine, N1,N1,N6,N6-tetrakis(4-methylphenyl)- (CA INDEX NAME)



IC ICM C07C013-615

ICS C09K011-06; H05B033-14; H05B033-22

CC 73-11 (Optical, Electron, and Mass Spectroscopy and Other Related Properties)

Section cross-reference(s): 25

IT 154853-83-5 663954-33-4

RL: DEV (Device component use); MOA (Modifier or additive use);

USES (Uses)

(dopants; polycyclic alicyclic compds. bearing phenylanthracene groups as emitters or hole transporting materials for blue-emitting organic electroluminescent devices)

L64 ANSWER 9 OF 38 HCAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 2004:182957 HCAPLUS Full-text

DOCUMENT NUMBER: 140:243296

TITLE: Organic electroluminescent devices and organic luminescent medium

INVENTOR(S): Matsuura, Masahide; Funahashi, Masakazu; Fukuoka, Kenichi; Hosokawa, Chishio

PATENT ASSIGNEE(S): Idemitsu Kosan Co., Ltd., Japan

SOURCE: PCT Int. Appl., 77 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

10549801-265764-EIC 1700 SEARCH

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2004018588	A1	20040304	WO 2003-JP8463	2003 0703
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W: CN, JP, KR				
RW: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR				
EP 1541657	A1	20050615	EP 2003-738656	2003 0703
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R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, FI, RO, CY, TR, BG, CZ, EE, HU, SK				
CN 1668719	A	20050914	CN 2003-817301	2003 0703
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CN 1842234	A	20061004	CN 2006-10067808	2003 0703
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CN 101068041	A	20071107	CN 2007-10101150	2003 0703
<--				
TW 278248	B	20070401	TW 2003-92118623	2003 0708
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US 20050064233	A1	20050324	US 2003-617397	2003 0711
<--				
US 20060033421	A1	20060216	US 2005-207933	2005 0822
<--				
US 20070237984	A1	20071011	US 2007-761437	2007 0612
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PRIORITY APPLN. INFO.:			JP 2002-211308	A 2002 0719
<--				
			CN 2003-817301	A3 2003 0703
<--				
			WO 2003-JP8463	W 2003 0703
<--				
			US 2003-617397	A3 2003 0711
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			US 2005-207933	A1 2005 0822

OTHER SOURCE(S): MARPAT 140:243296
ED Entered STN: 05 Mar 2004

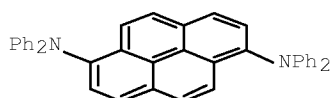
10549801-265764-EIC 1700 SEARCH

AB An organic electroluminescent device comprises a pair of electrodes and an organic luminescent medium layer which is placed between the electrodes and contains (A) a specific arylamine and (B) at least one compound selected from among specific anthracene derivs., spiro fluorene derivs., fused-ring compds., and metal complexes; and an organic luminescent medium containing the components (A) and (B). The organic electroluminescent device exhibits high color purity, excellent heat resistance and a long lifetime and emits blue to yellow light at high efficiency, and the organic luminescent medium is suitable for use in such devices.

IT 76656-53-6 668019-96-3 668020-20-0
668020-26-6 668020-53-9 668020-61-9
RL: DEV (Device component use); USES (Uses)
(organic electroluminescent devices and organic luminescent medium)

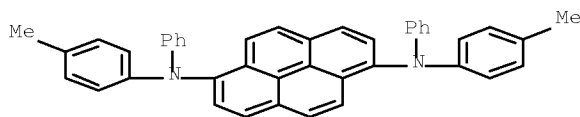
RN 76656-53-6 HCAPLUS

CN 1,6-Pyrenediamine, N1,N1,N6,N6-tetraphenyl- (CA INDEX NAME)



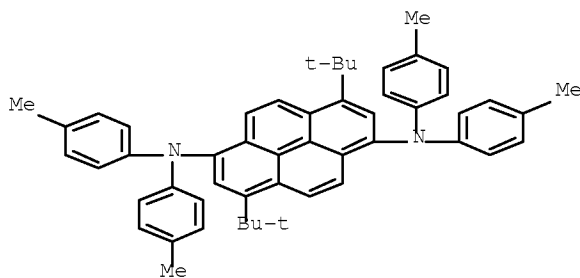
RN 668019-96-3 HCAPLUS

CN 1,6-Pyrenediamine, N1,N6-bis(4-methylphenyl)-N1,N6-diphenyl- (CA INDEX NAME)



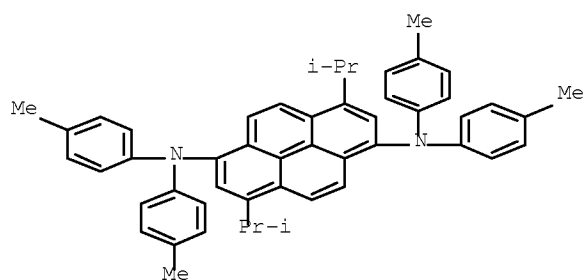
RN 668020-20-0 HCAPLUS

CN 1,6-Pyrenediamine, 3,8-bis(1,1-dimethylethyl)-N1,N1,N6,N6-tetrakis(4-methylphenyl)- (CA INDEX NAME)



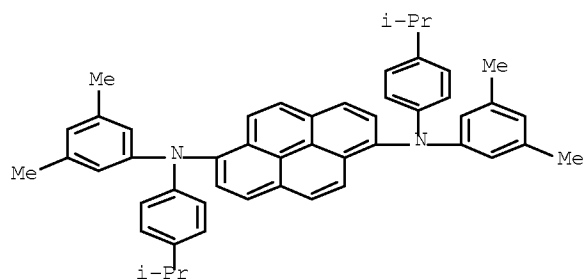
RN 668020-26-6 HCAPLUS

CN 1,6-Pyrenediamine, 3,8-bis(1-methylethyl)-N1,N1,N6,N6-tetrakis(4-methylphenyl)- (CA INDEX NAME)



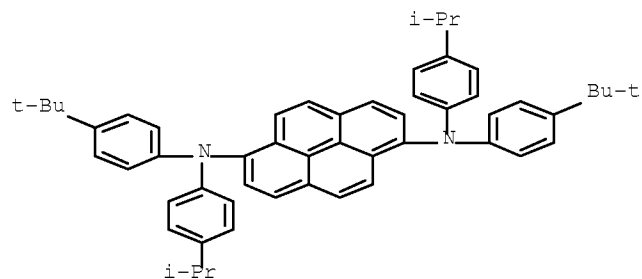
RN 668020-53-9 HCAPLUS

CN 1,6-Pyrenediamine, N1,N6-bis(3,5-dimethylphenyl)-N1,N6-bis[4-(1-methylethyl)phenyl]- (CA INDEX NAME)



RN 668020-61-9 HCAPLUS

CN 1,6-Pyrenediamine, N1,N6-bis[4-(1,1-dimethylethyl)phenyl]-N1,N6-bis[4-(1-methylethyl)phenyl]- (CA INDEX NAME)



IC ICM C09K011-06

ICS H05B033-14; H05B033-22

CC 73-5 (Optical, Electron, and Mass Spectroscopy and Other Related Properties)

Section cross-reference(s): 25, 74

IT 76656-53-6 122648-99-1 131625-67-7 171408-93-8
 172285-79-9 172285-83-5 220721-68-6 244281-01-4
 279672-22-9 349666-25-7 400606-81-7 475461-15-5
 668019-24-7 668019-64-5 668019-76-9 668019-96-3
 668020-07-3 668020-14-2 668020-20-0
 668020-26-6 668020-28-8 668020-34-6 668020-39-1

10549801-265764-EIC 1700 SEARCH

668020-46-0 668020-53-9 668020-61-9

668020-67-5 668020-74-4 668020-81-3 668020-88-0

RL: DEV (Device component use); USES (Uses)

(organic electroluminescent devices and organic luminescent medium)

REFERENCE COUNT: 23 THERE ARE 23 CITED REFERENCES AVAILABLE
FOR THIS RECORD. ALL CITATIONS AVAILABLE
IN THE RE FORMAT

L64 ANSWER 10 OF 38 HCAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 2004:162657 HCAPLUS Full-text
DOCUMENT NUMBER: 140:225502
TITLE: Oligoarylene derivatives for organic
electroluminescent devices
INVENTOR(S): Ikeda, Hidetsugu; Matsuura, Masahide;
Kawamura, Hisayuki
PATENT ASSIGNEE(S): Idemitsu Kosan Co., Ltd., Japan
SOURCE: PCT Int. Appl., 35 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO. -----	KIND ----	DATE -----	APPLICATION NO. -----	DATE
WO 2004016575	A1	20040226	WO 2003-JP10071	2003 0807
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W: CN, KR, US				
RW: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR				
JP 2004075567	A	20040311	JP 2002-234833	2002 0812
<--				
EP 1533290	A1	20050525	EP 2003-788055	2003 0807
<--				
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, FI, RO, CY, TR, BG, CZ, EE, HU, SK				
CN 1675149	A	20050928	CN 2003-819058	2003 0807
<--				
TW 287408	B	20070921	TW 2003-92122023	2003 0811
<--				
US 20060134456	A1	20060622	US 2005-522546	2005 0127
<--				
PRIORITY APPLN. INFO.:			JP 2002-234833	A 2002 0812
<--				
			WO 2003-JP10071	W 2003 0807
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OTHER SOURCE(S): MARPAT 140:225502

ED Entered STN: 29 Feb 2004

AB The invention relates to oligoarylene derivs. represented by Ar1-Ch-Ar2, Ch1-L-Ch2,
Ar3-(L1)a-Ch3-(L2)b-Ar4, and Ar5-Ch4-(Ar7)n-L3-(Ar8)m-Ch5-Ar6(1) [Ch, Ch1 and Ch2 =

10549801-265764-EIC 1700 SEARCH

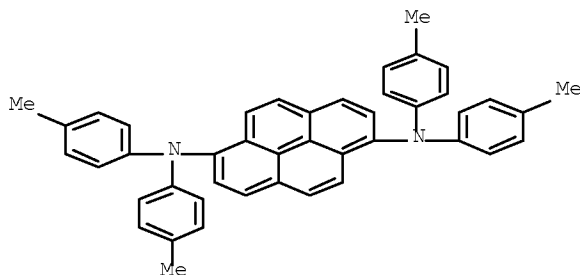
C14-20 condensed aromatic ring; Ch3, Ch4 and Ch5 = C14-20 arylene group; Ar1-6 = aryl group containing 5-30 atoms; Ar7 and Ar8 = arylene group containing 5-30 atoms; L1-3 = connecting group; and a, b, n and m = 0 or 1]. The oligoarylene derivs. are suited for use as a host material of a blue electroluminescent material in an organic electroluminescent device.

IT 663954-33-4P

RL: DEV (Device component use); SPN (Synthetic preparation); PREP (Preparation); USES (Uses)
(oligoarylene derivs. for organic electroluminescent devices)

RN 663954-33-4 HCAPLUS

CN 1,6-Pyrenediamine, N1,N1,N6,N6-tetrakis(4-methylphenyl)- (CA INDEX NAME)



IC ICM C07C015-62

ICS C09K011-06; H05B033-14; H05B033-22

CC 73-11 (Optical, Electron, and Mass Spectroscopy and Other Related Properties)

Section cross-reference(s): 25

IT 154853-83-5P 663954-28-7P 663954-29-8P 663954-30-1P

663954-32-3P 663954-33-4P

RL: DEV (Device component use); SPN (Synthetic preparation); PREP (Preparation); USES (Uses)

(oligoarylene derivs. for organic electroluminescent devices)

REFERENCE COUNT: 2 THERE ARE 2 CITED REFERENCES AVAILABLE
FOR THIS RECORD. ALL CITATIONS AVAILABLE
IN THE RE FORMAT

L64 ANSWER 11 OF 38 HCAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 2003:673843 HCAPLUS Full-text

DOCUMENT NUMBER: 139:221355

TITLE: Diaminonaphthalene compounds and their organic electroluminescent devices having long luminescence life and durability

INVENTOR(S): Totani, Yoshiyuki; Shimamura, Takehiko; Ishida, Tsutomu; Tanabe, Yoshimitsu; Nakatsuka, Masakatsu

PATENT ASSIGNEE(S): Mitsui Chemicals Inc., Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 21 pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent

LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

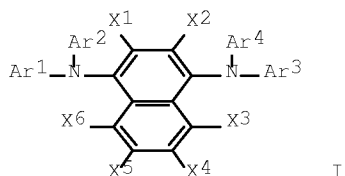
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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JP 2003238502	A	20030827	JP 2002-36418	2002 0214

10549801-265764-EIC 1700 SEARCH

PRIORITY APPLN. INFO.:

<--
JP 2002-364182002
0214OTHER SOURCE(S): MARPAT 139:221355
ED Entered STN: 28 Aug 2003
GI

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AB The diaminonaphthalene compds. are represented by general formula of I [Ar1-Ar4 = (un)substituted aryl, ≥1 of Ar1-Ar4 = condensed aromatic hydrocarbyl; X1-X6 = H, OnZ; Z = (halogen-substituted) alkyl, aryl; n = 0, 1]. The organic EL device has ≥1 layers containing I, maybe in a hole injection-transporting layer or a luminescent layer.

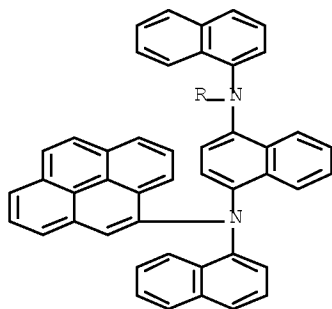
IT 586414-46-2P

RL: DEV (Device component use); IMF (Industrial manufacture); PREP (Preparation); USES (Uses)
(diaminonaphthalene compds. for hole injection-transporting layers or luminescent layers of organic EL devices having long luminescence life and durability)

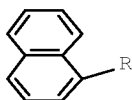
RN 586414-46-2 HCAPLUS

CN 1,4-Naphthalenediamine, N1,N1,N4-tri-1-naphthalenyl-N4-4-pyrenyl-
(CA INDEX NAME)

PAGE 1-A



PAGE 2-A

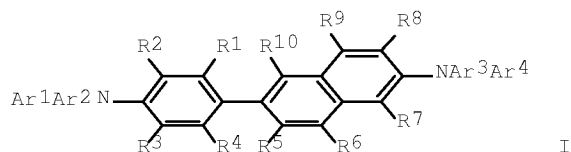


10549801-265764-EIC 1700 SEARCH

IC ICM C07C211-57
 ICS C07C211-61; C09K011-06; H05B033-14; H05B033-22
 CC 73-11 (Optical, Electron, and Mass Spectroscopy and
 Other Related Properties)
 Section cross-reference(s): 25
 IT 244280-93-1P 244280-97-5P 586414-40-6P 586414-41-7P
 586414-42-8P 586414-43-9P 586414-44-0P 586414-45-1P
 586414-46-2P
 RL: DEV (Device component use); IMF (Industrial manufacture); PREP
 (Preparation); USES (Uses)
 (diaminonaphthalene compds. for hole injection-transporting
 layers or luminescent layers of organic EL devices having long
 luminescence life and durability)

L64 ANSWER 12 OF 38 HCAPLUS COPYRIGHT 2008 ACS on STN
 ACCESSION NUMBER: 2003:239844 HCAPLUS Full-text
 DOCUMENT NUMBER: 138:278159
 TITLE: Aromatic amine and organic electroluminescent
 device using the amine
 INVENTOR(S): Totani, Yoshiyuki; Shimamura, Takehiko;
 Ishida, Tsutomu; Tanabe, Yoshimitsu;
 Nakatsuka, Masakatsu
 PATENT ASSIGNEE(S): Mitsui Chemicals Inc., Japan
 SOURCE: Jpn. Kokai Tokkyo Koho, 20 pp.
 CODEN: JKXXAF
 DOCUMENT TYPE: Patent
 LANGUAGE: Japanese
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO. -----	KIND ----	DATE -----	APPLICATION NO. -----	DATE
JP 2003089682	A	20030328	JP 2001-285020	2001 0919
<--				
PRIORITY APPLN. INFO.:			JP 2001-285020	2001 0919
<--				
OTHER SOURCE(S): MARPAT 138:278159				
ED Entered STN: 28 Mar 2003				
GI				



AB The amine is that represented as I [Ar1-Ar4 = (substituted) aryl; R1-R10 = H, halogen, (O)nZ; Z = (halogen-substituted) linear, branched, or cyclic alkyl, (substituted) aryl; n = 0, 1]. The electroluminescent device is that having ≥1 layer containing I, preferably as a pos. hole-transporting layer or a light-emitting layer, sandwiched between a pair of electrodes.

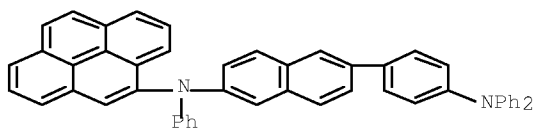
IT 503299-14-7P 503299-15-8P 503299-16-9P
 RL: IMF (Industrial manufacture); TEM (Technical or engineered
 material use); PREP (Preparation); USES (Uses)
 (aromatic amine for pos. hole-transporting layer or light-emitting

10549801-265764-EIC 1700 SEARCH

layer in organic electroluminescent device)

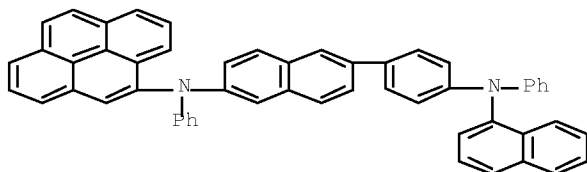
RN 503299-14-7 HCAPLUS

CN 4-Pyrenamine, N-[6-[4-(diphenylamino)phenyl]-2-naphthalenyl]-N-phenyl- (CA INDEX NAME)



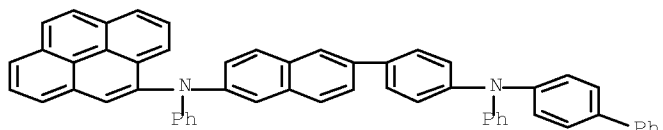
RN 503299-15-8 HCAPLUS

CN 4-Pyrenamine, N-[6-[4-(1-naphthalenylphenylamino)phenyl]-2-naphthalenyl]-N-phenyl- (CA INDEX NAME)



RN 503299-16-9 HCAPLUS

CN 4-Pyrenamine, N-[6-[4-([1,1'-biphenyl]-4-ylphenylamino)phenyl]-2-naphthalenyl]-N-phenyl- (CA INDEX NAME)



IC ICM C07C211-57

ICS C07C211-58; C07C211-61; C09K011-06; H05B033-14; H05B033-22

CC 73-11 (Optical, Electron, and Mass Spectroscopy and Other Related Properties)

Section cross-reference(s): 25

IT 503299-09-0P 503299-10-3P 503299-11-4P 503299-12-5P

503299-13-6P 503299-14-7P 503299-15-8P

503299-16-9P 503299-17-0P

RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)

(aromatic amine for pos. hole-transporting layer or light-emitting layer in organic electroluminescent device)

L64 ANSWER 13 OF 38 HCAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 2002:964695 HCAPLUS Full-text

DOCUMENT NUMBER: 138:47036

TITLE: Organic electroluminescence device with gallium quinolinato complex and styryl arylene host

INVENTOR(S): Hosokawa, Chishio; Funahashi, Masakazu; Sakai, Toshio; Arakane, Takashi; Yamamoto, Hiroshi

10549801-265764-EIC 1700 SEARCH

PATENT ASSIGNEE(S): Idemitsu Kosan Co., Ltd., Japan
 SOURCE: PCT Int. Appl., 73 pp.
 CODEN: PIXXD2
 DOCUMENT TYPE: Patent
 LANGUAGE: Japanese
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2002102118	A1	20021219	WO 2002-JP4427	2002 0507

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W: CN, IN, JP, KR
 RW: AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU,
 MC, NL, PT, SE, TR
 EP 1404160 A1 20040331 EP 2002-724697
 2002
0507

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R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE,
 MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR
 CN 1513283 A 20040714 CN 2002-811332
 2002
0507

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JP 4029071 B2 20080109 JP 2003-504716
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US 20030077480 A1 20030424 US 2002-141982
 2002
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TW 286911 B 20070911 TW 2002-91109908
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US 20050227111 A1 20051013 US 2004-935102
 2004
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US 7087322 B2 20060808
 US 20060257687 A1 20061116 US 2006-480469
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PRIORITY APPLN. INFO.: JP 2001-170960 A
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WO 2002-JP4427 W
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US 2002-141982 B1
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US 2004-935102 A3
 2004
0908

ED Entered STN: 20 Dec 2002

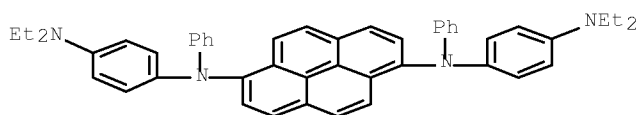
10549801-265764-EIC 1700 SEARCH

AB The invention refers to an organic electroluminescence device comprising at least one organic thin-film layer with a laminate containing a metal complex with energy gap > 2.8 eV, and a host material layer. The electroluminescence device exhibits a high luminance and has high emission efficiency and a long life.

IT 478702-59-9
 RL: DEV (Device component use); USES (Uses)
 (organic electroluminescence device with gallium quinolinato complex and styryl arylene host)

RN 478702-59-9 HCAPLUS

CN 1,6-Pyrenediamine, N1,N6-bis[4-(diethylamino)phenyl]-N1,N6-diphenyl- (CA INDEX NAME)



IC ICM H05B033-22
 ICS H05B033-14; C09K011-06

CC 73-11 (Optical, Electron, and Mass Spectroscopy and Other Related Properties)

IT 23102-67-2 186412-15-7 221453-38-9 279672-58-1 403671-71-6
 403671-73-8 478702-59-9 478702-60-2
 RL: DEV (Device component use); USES (Uses)
 (organic electroluminescence device with gallium quinolinato complex and styryl arylene host)

REFERENCE COUNT: 6 THERE ARE 6 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L64 ANSWER 14 OF 38 HCAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 2002:595531 HCAPLUS Full-text

DOCUMENT NUMBER: 137:161221

TITLE: 3,6,9-trisubstituted carbazoles for light emitting diodes

INVENTOR(S): Lin, Jiann T'suen; Thomas, K. R. Justin; Tao, Yu-tai; Ko, Chung-wen

PATENT ASSIGNEE(S): Academia Sinica, Taiwan

SOURCE: U.S. Pat. Appl. Publ., 10 pp.
 CODEN: USXXCO

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

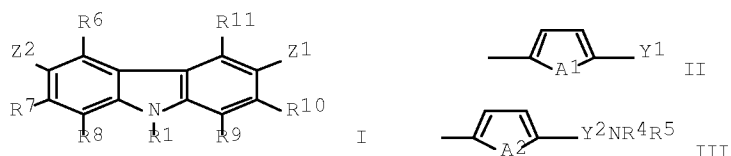
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 20020107405	A1	20020808	US 2001-990576	2001 1121
US 6649772	B2	20031118		
PRIORITY APPLN. INFO.:			US 2000-252804P	P 2000 1122

OTHER SOURCE(S): MARPAT 137:161221

ED Entered STN: 09 Aug 2002

GI



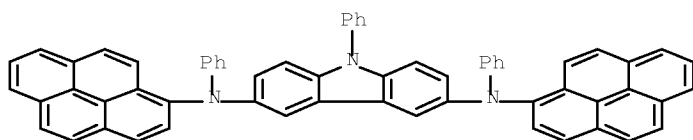
AB Compds. are described by the general formula I (Z1 and Z2 = independently selected - N(R2)R3, II, and III; A1 and A2 - independently selected S, O, NR, or CH:CH; Y1, Y2 and R1-5 = independently selected aryl or heteroaryl groups; R6-11 = independently selected H, CN, alkyl, OR, NRR', COR, or C(O)OR; and R and R' = independently selected H or alkyl). Electroluminescent devices employing the compds. in hole-transporting and/or light-emitting layers are also described.

IT 340162-05-2P 340162-07-4P 340162-08-5P

RL: DEV (Device component use); SPN (Synthetic preparation); PREP (Preparation); USES (Uses)
(carbazole derivs. and light-emitting diodes using them)

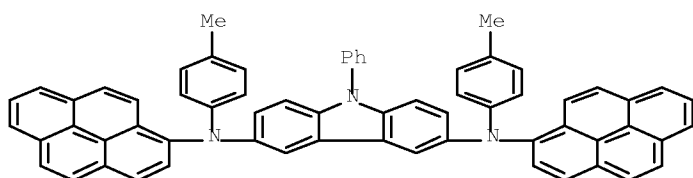
RN 340162-05-2 HCAPLUS

CN 9H-Carbazole-3,6-diamine, N3,N6,9-triphenyl-N3,N6-di-1-pyrenyl-
(CA INDEX NAME)



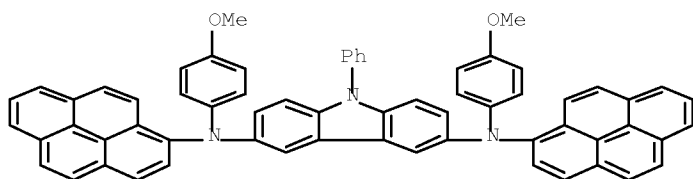
RN 340162-07-4 HCAPLUS

CN 9H-Carbazole-3,6-diamine, N3,N6-bis(4-methylphenyl)-9-phenyl-N3,N6-di-1-pyrenyl- (CA INDEX NAME)



RN 340162-08-5 HCAPLUS

CN 9H-Carbazole-3,6-diamine, N3,N6-bis(4-methoxyphenyl)-9-phenyl-N3,N6-di-1-pyrenyl- (CA INDEX NAME)



10549801-265764-EIC 1700 SEARCH

IC ICM C07D209-94
 INCL 548439000
 CC 73-11 (Optical, Electron, and Mass Spectroscopy and
 Other Related Properties)
 Section cross-reference(s): 27, 76
 IT 340162-05-2P 340162-07-4P 340162-08-5P
 410547-39-6P
 RL: DEV (Device component use); SPN (Synthetic preparation); PREP
 (Preparation); USES (Uses)
 (carbazole derivs. and light-emitting diodes using them)

L64 ANSWER 15 OF 38 HCAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 2002:587825 HCAPLUS Full-text

DOCUMENT NUMBER: 137:301792

TITLE: Green and Yellow Electroluminescent Dipolar
 Carbazole Derivatives: Features and Benefits
 of Electron-Withdrawing Segments

AUTHOR(S): Thomas, K. R. Justin; Lin, Jiann T.; Tao,
 Yu-Tai; Chuen, Chang-Hao

CORPORATE SOURCE: Institute of Chemistry, Academia Sinica,
 Nankang, 115, Taiwan

SOURCE: Chemistry of Materials (2002),
 14(9), 3852-3859

CODEN: CMATEX; ISSN: 0897-4756

PUBLISHER: American Chemical Society

DOCUMENT TYPE: Journal

LANGUAGE: English

ED Entered STN: 08 Aug 2002

AB New multiply substituted carbazole derivs. containing fluorene or phenylene conjugated
 oxadiazole segments and quinoxaline units were obtained by Pd-catalyzed C-N coupling
 reactions. They are amorphous with the glass transition temperature (Tg) in the range
 104-176°. The emission color of the materials varies from blue to yellow and is
 dependent on the nature of the electron-withdrawing segments and solvents. Two
 reversible 1-electron oxidns. were observed for these mols. in cyclic voltammograms,
 which originate from the peripheral 3,6-diarylamino units in the 3,6,9-trisubstituted
 derivs. and diarylamine and carbazole segments in the 3,9-disubstituted compds. Redns.
 originating from quinoxaline segments were also located for the mols. incorporating
 quinoxaline moieties. The double-layer organic light-emitting diodes fabricated using
 these compds. as hole-transporting/emitting layers and TPBI or Alq3 as an electron-
 transporting layer emit bluish green to yellow colors. The recombination zone is
 restricted in the HTL layer for the quinoxaline-containing mols. irres. of the
 electron-transporting layer used and emission occurs from them. However, for the
 oxadiazole derivs. emission in the Alq3-based devices is either red shifted or
 resembles that of Alq3. Cyclic voltammetric and spectroscopic data support more
 pronounced electron affinity for the quinoxaline-incorporated carbazole derivs. than
 for the oxadiazole-tethered carbazole materials.

IT 468062-31-9P

RL: DEV (Device component use); PNU (Preparation, unclassified);

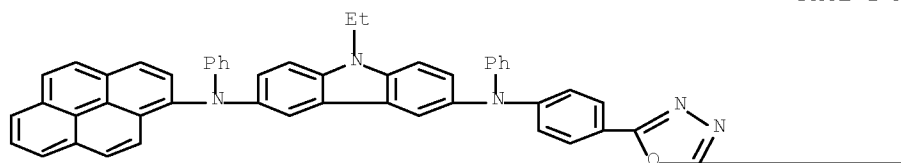
PRP (Properties); PREP (Preparation); USES (Uses)

(green and yellow electroluminescent dipolar carbazole derivs.
 and their electrochem. and spectral and luminescent properties
 affected by electron-withdrawing segments)

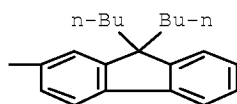
RN 468062-31-9 HCAPLUS

CN 9H-Carbazole-3,6-diamine, N3-[4-[5-(9,9-dibutyl-9H-fluoren-2-yl)-
 1,3,4-oxadiazol-2-yl]phenyl]-9-ethyl-N3,N6-diphenyl-N6-1-pyrenyl-
 (CA INDEX NAME)

PAGE 1-A



PAGE 1-B



CC 73-11 (Optical, Electron, and Mass Spectroscopy and Other Related Properties)
 Section cross-reference(s): 22, 72, 76
 IT 468062-26-2P 468062-27-3P 468062-28-4P 468062-29-5P
 468062-30-8P 468062-31-9P 468062-32-0P
 RL: DEV (Device component use); PNU (Preparation, unclassified);
 PRP (Properties); PREP (Preparation); USES (Uses)
 (green and yellow electroluminescent dipolar carbazole derivs.
 and their electrochem. and spectral and luminescent properties
 affected by electron-withdrawing segments)
 REFERENCE COUNT: 45 THERE ARE 45 CITED REFERENCES AVAILABLE
 FOR THIS RECORD. ALL CITATIONS AVAILABLE
 IN THE RE FORMAT

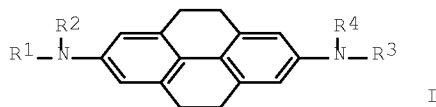
L64 ANSWER 16 OF 38 HCAPLUS COPYRIGHT 2008 ACS on STN
 ACCESSION NUMBER: 2002:538511 HCAPLUS Full-text
 DOCUMENT NUMBER: 137:101222
 TITLE: Hole transport compound and organic thin film
 luminescent component
 INVENTOR(S): Ito, Yuichi
 PATENT ASSIGNEE(S): Toppan Printing Co., Ltd., Japan
 SOURCE: Jpn. Kokai Tokkyo Koho, 9 pp.
 CODEN: JKXXAF
 DOCUMENT TYPE: Patent
 LANGUAGE: Japanese
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2002203685	A	20020719	JP 2000-399866	2000 1228
JP 4061840	B2	20080319	JP 2000-399866	2000 1228

PRIORITY APPLN. INFO.:
 OTHER SOURCE(S): MARPAT 137:101222

10549801-265764-EIC 1700 SEARCH

ED Entered STN: 19 Jul 2002
GI



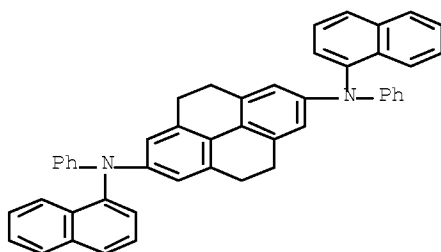
AB The invention refers to a tetrahydropyrene hole transport compound I [R1-2 = Ph, tolyl, naphthyl, biphenyl, 9,9-dimethylfluorene-2-yl, or 4,5,9,10-tetrahydropyrene; and R1,2 and/or R3,4 may be connected and contain at least one carbazoyl or iminobenzyl, and the unconnected Rn = Ph, tolyl, naphthyl, biphenyl, 9,9-dimethylfluorene-2-yl, or 4,5,9,10-tetrahydropyrene] with heat resistance properties.

IT 403671-76-1P

RL: DEV (Device component use); SPN (Synthetic preparation); PREP (Preparation); USES (Uses)
(hole transport compound and organic thin film luminescent component)

RN 403671-76-1 HCAPLUS

CN 2,7-Pyrenediamine, 4,5,9,10-tetrahydro-N2,N7-di-1-naphthalenyl-N2,N7-diphenyl- (CA INDEX NAME)



IC ICM H05B033-22

ICS C07C211-61; H05B033-14

CC 73-11 (Optical, Electron, and Mass Spectroscopy and Other Related Properties)

IT 403671-76-1P

RL: DEV (Device component use); SPN (Synthetic preparation); PREP (Preparation); USES (Uses)
(hole transport compound and organic thin film luminescent component)

L64 ANSWER 17 OF 38 HCAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 2002:313483 HCAPLUS Full-text

DOCUMENT NUMBER: 136:332524

TITLE: Organic electroluminescent devices

INVENTOR(S): Hosokawa, Chishio; Funahashi, Masakazu

PATENT ASSIGNEE(S): Idemitsu Kosan Co., Ltd., Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 20 pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent

LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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10549801-265764-EIC 1700 SEARCH

JP 2002124385

A

20020426

JP 2000-319265

2000

1019

PRIORITY APPLN. INFO.:

JP 2000-319265

2000

1019

OTHER SOURCE(S): MARPAT 136:332524

ED Entered STN: 26 Apr 2002

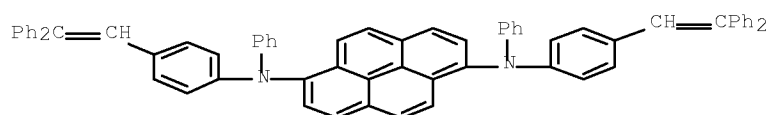
AB The devices comprise a pair of electrodes interposing an organic electroluminescent laminate containing a phosphor layer comprising a polyarom. hydrocarbon ring.

IT 415683-11-3

RL: DEV (Device component use); USES (Uses)
(organic electroluminescent devices)

RN 415683-11-3 HCAPLUS

CN 1,6-Pyrenediamine, N1,N6-bis[4-(2,2-diphenylethenyl)phenyl]-N1,N6-diphenyl- (CA INDEX NAME)



IC ICM H05B033-14

ICS C07C013-40; C07C013-615; C09B048-00; C09K011-06

CC 73-5 (Optical, Electron, and Mass Spectroscopy and Other
Related Properties)IT 2085-33-8, Tris(8-quinolinolato)aluminum 7439-93-2, Lithium,
uses 50926-11-9, ITO 65181-78-4, TPD 123847-85-8, α -NPD 274256-88-1 415683-03-3 415683-04-4

415683-05-5 415683-06-6 415683-07-7 415683-08-8

415683-09-9 415683-10-2 415683-11-3 415683-13-5

RL: DEV (Device component use); USES (Uses)
(organic electroluminescent devices)

L64 ANSWER 18 OF 38 HCAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 2002:273085 HCAPLUS Full-text

DOCUMENT NUMBER: 136:316695

TITLE: Organic electroluminescent device

INVENTOR(S): Agata, Takashi; Okuda, Daisuke; Yoneyama,
Hiroto; Seki, Mieko; Mashimo, Kiyokazu;
Hirose, Eiichi; Sato, Katsuhiro; Nukada,
Katsuki

PATENT ASSIGNEE(S): Fuji Xerox Co., Ltd., Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 18 pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent

LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.

KIND

DATE

APPLICATION NO.

DATE

JP 2002110360

A

20020412

JP 2000-303696

2000

1003

PRIORITY APPLN. INFO.:

JP 2000-303696

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ED Entered STN: 12 Apr 2002

GI

* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT

*

AB The invention relates to an organic electroluminescent device comprising the hole transporting material represented by I and II [R1-3 = H, alkyl, alkoxy, etc.; R4 = H, alkyl, aryl, etc.; X = divalent aromatic group; T = C1-10 divalent normal or branched hydrocarbon group; k = 0 or 1].

IT 409115-13-5

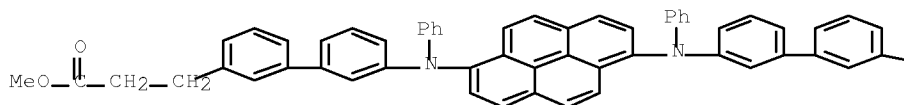
RL: DEV (Device component use); USES (Uses)

(hole transporting material; organic electroluminescent device)

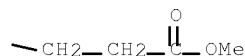
RN 409115-13-5 HCAPLUS

CN [1,1'-Biphenyl]-3-propanoic acid, 3',3''-[1,6-pyrenediylbis(phenylimino)]bis-, dimethyl ester (9CI) (CA INDEX NAME)

PAGE 1-A



PAGE 1-B



IC ICM H05B033-22

ICS C09K011-06; H05B033-14

CC 73-11 (Optical, Electron, and Mass Spectroscopy and Other Related Properties)

Section cross-reference(s): 25

IT 409115-12-4 409115-13-5 409115-14-6 409115-15-7

RL: DEV (Device component use); USES (Uses)

(hole transporting material; organic electroluminescent device)

L64 ANSWER 19 OF 38 HCAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 2002:185057 HCAPLUS Full-text

DOCUMENT NUMBER: 136:238791

TITLE: Novel arylamine compounds and organic electroluminescent devices

INVENTOR(S): Hosokawa, Chishio; Funahashi, Masakazu

PATENT ASSIGNEE(S): Idemitsu Kosan Co., Ltd., Japan

SOURCE: PCT Int. Appl., 44 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

10549801-265764-EIC 1700 SEARCH

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2002020460	A1	20020314	WO 2001-JP7477	2001 0830
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W: CN, IN, KR				
RW: AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR				
JP 2002080433	A	20020319	JP 2000-268833	2000 0905
<--				
JP 3998903	B2	20071031		
EP 1219590	A1	20020703	EP 2001-961205	2001 0830
<--				
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI, CY, TR				
CN 1775737	A	20060524	CN 2005-10109955	2001 0830
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US 20020137969	A1	20020926	US 2001-945633	2001 0905
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US 6515182	B2	20030204		
IN 2002CN00656	A	20071221	IN 2002-CN656	2002 0503
<--				
KR 831510	B1	20080522	KR 2002-705857	2002 0506
<--				
US 20030018218	A1	20030123	US 2002-193323	2002 0712
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US 6657084	B2	20031202		
US 20040054232	A1	20040318	US 2003-658417	2003 0910
<--				
US 7081550	B2	20060725		
US 20060186799	A1	20060824	US 2006-406400	2006 0419
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IN 2006CN02746	A	20070608	IN 2006-CN2746	2006 0725
<--				
JP 2007266620	A	20071011	JP 2007-131496	2007 0517
<--				
KR 2007118709	A	20071217	KR 2007-727193	2007 1122
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PRIORITY APPLN. INFO.:			JP 2000-268833	A 2000

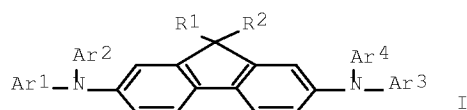
10549801-265764-EIC 1700 SEARCH

<-- 0905
 CN 2001-802631 A3
 2001
 0830
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 WO 2001-JP7477 W
 2001
 0830
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 US 2001-945633 A3
 2001
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 IN 2002-CN656 A3
 2002
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 KR 2002-705857 A3
 2002
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 US 2002-193323 A1
 2002
 0712
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 US 2003-658417 A1
 2003
 0910
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OTHER SOURCE(S): MARPAT 136:238791

ED Entered STN: 15 Mar 2002

GI



AB Novel arylamine compds. I, and an organic electroluminescent device whose organic compound layer contains a novel arylamine compound described above: I (wherein R1 and R2 are each independently alkyl, alkoxy, aryl, arylalkyl, or aryloxy; and Ar1 to Ar4 may be each independently aryl or a heterocyclic group, but at least 2 of Ar1 to Ar4 must be each m-biphenyl or aryl-substituted biphenyl with the remainder being each biphenyl, provided that when the aryl-substituted biphenyl is di-aryl-substituted biphenyl, the remainder are each aryl). The invention provides organic electroluminescent devices exhibiting high luminance, high heat resistance, long lifetime and high light emitting efficiency, and novel arylamine compds. capable of realizing such electroluminescent devices.

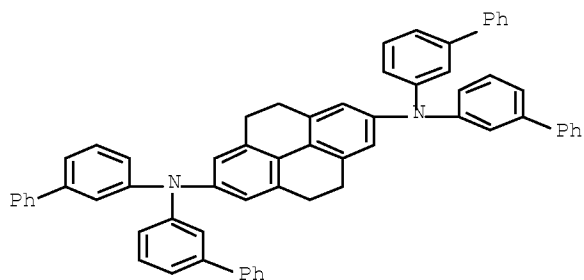
IT 403671-75-0 403671-76-1

RL: DEV (Device component use); USES (Uses)

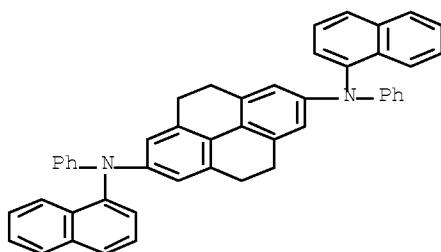
(novel arylamine compds. and organic electroluminescent devices)

RN 403671-75-0 HCAPLUS

CN 2,7-Pyrenediamine, N2,N2,N7,N7-tetrakis([1,1'-biphenyl]-3-yl)-
 4,5,9,10-tetrahydro- (CA INDEX NAME)



RN 403671-76-1 HCAPLUS
 CN 2,7-Pyrenediamine, 4,5,9,10-tetrahydro-N2,N7-di-1-naphthalenyl-
 N2,N7-diphenyl- (CA INDEX NAME)



IC ICM C07C211-61
 ICS C07C225-22; C09K011-06; H05B033-14; H05B033-22
 CC 73-S (Optical, Electron, and Mass Spectroscopy and Other
 Related Properties)
 Section cross-reference(s): 25
 IT 2085-33-8, Tris(8-quinolinolato)aluminum 7439-93-2, Lithium,
 uses 50926-11-9, ITO 65181-78-4, TPD 403671-75-0
 403671-76-1 403671-77-2 403671-78-3 403671-79-4
 RL: DEV (Device component use); USES (Uses)
 (novel arylamine compds. and organic electroluminescent devices)
 REFERENCE COUNT: 9 THERE ARE 9 CITED REFERENCES AVAILABLE
 FOR THIS RECORD. ALL CITATIONS AVAILABLE
 IN THE RE FORMAT

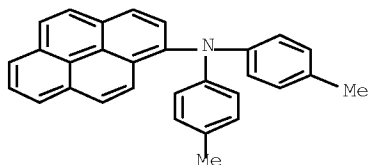
L64 ANSWER 20 OF 38 HCAPLUS COPYRIGHT 2008 ACS on STN
 ACCESSION NUMBER: 2002:47845 HCAPLUS Full-text
 DOCUMENT NUMBER: 136:126476
 TITLE: Purification of material for electronic use
 using activated clay, and purified product
 INVENTOR(S): Abe, Katsumi; Nishimura, Tomonori; Watanabe,
 Takanobu; Suzuka, Susumu
 PATENT ASSIGNEE(S): Hodogaya Chemical Co., Ltd., Japan
 SOURCE: Jpn. Kokai Tokkyo Koho, 15 pp.
 CODEN: JKXXAF
 DOCUMENT TYPE: Patent
 LANGUAGE: Japanese
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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10549801-265764-EIC 1700 SEARCH

JP 2002014478 A 20020118 JP 2000-199334 2000
0630
US 20030050489 A1 20030313 US 2001-893684 2001
0629
US 6858161 B2 20050222
PRIORITY APPLN. INFO.: JP 2000-199334 A 2000
0630

ED Entered STN: 18 Jan 2002
AB Purification of the material or its intermediate for electronic use, e.g.
electrophotog. photoreceptors and electroluminescent materials, is carried out by
dissolving it in an organic solvent, followed by contacting with activated clay at 65-
200°, preferably at 80-130°. The purified material gives highly sensitive electronic
apparatus
IT 131625-67-7P
RL: DEV (Device component use); PUR (Purification or recovery);
TEM (Technical or engineered material use); PREP (Preparation);
USES (Uses)
(charge-transporting agent; purification of material for electronic
use using activated clay)
RN 131625-67-7 HCAPLUS
CN 1-Pyrenamine, N,N-bis(4-methylphenyl)- (CA INDEX NAME)



IC ICM G03G005-00
ICS B01D015-00; B01J020-12; G03G005-06; C09K011-06
CC 74-3 (Radiation Chemistry, Photochemistry, and Photographic and
Other Reprographic Processes)
Section cross-reference(s): 73
IT 20440-95-3P 65181-78-4P 82532-76-1P 83992-95-4P
89114-90-9P 89114-91-0P 89115-11-7P 106614-59-9P
119344-18-2P 122738-25-4P 124373-59-7P 129119-41-1P
129119-42-2P 131625-67-7P 132571-92-7P 148077-51-4P
167218-46-4P 169685-34-1P 178477-02-6P 178477-07-1P
204326-97-6P 389867-91-8P 389867-92-9P
RL: DEV (Device component use); PUR (Purification or recovery);
TEM (Technical or engineered material use); PREP (Preparation);
USES (Uses)
(charge-transporting agent; purification of material for electronic
use using activated clay)

L64 ANSWER 21 OF 38 HCAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 2001:932596 HCAPLUS Full-text
DOCUMENT NUMBER: 136:61299
TITLE: Electroluminescent device using styrylamines
INVENTOR(S): Arai, Kazumi
PATENT ASSIGNEE(S): Fuji Photo Film Co., Ltd., Japan
SOURCE: Jpn. Kokai Tokkyo Koho, 33 pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese

10549801-265764-EIC 1700 SEARCH

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2001354955	A	20011225	JP 2000-177761	2000 0614
JP 4076709	B2	20080416	<--	
PRIORITY APPLN. INFO.:			JP 2000-177761	2000 0614
			<--	

OTHER SOURCE(S): MARPAT 136:61299

ED Entered STN: 27 Dec 2001

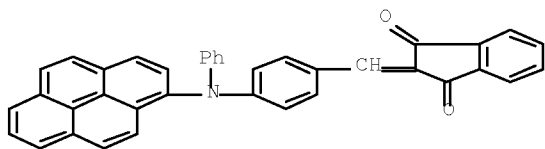
AB The invention relates to a red-emitting electroluminescent device comprising R1R2R3N [R1-3 = (un)substituted aryl, heterocyclyl, aliphatic hydrocarbyl; ≥2 of R1-3 is aryl or heterocyclyl; ≥1 of R1-3 is aryl or heterocyclyl formed by ≥3 rings; ≥2 of R1-3 may form a ring; ≥1 R1-3 is substituted by a group (5 - 7 membered ring):C(R4)(CR5:CR6)m- (R4-6 = H, substituent; m = 0, 1 or 2)]. The red luminous component offers superior in color purity.

IT 382601-10-7P

RL: DEV (Device component use); SPN (Synthetic preparation); PREP (Preparation); USES (Uses)
(electroluminescent devices using styrylamines)

RN 382601-10-7 HCAPLUS

CN 1H-Indene-1,3(2H)-dione, 2-[[4-(phenyl-1-pyrenylamino)phenyl]methylene]- (CA INDEX NAME)



IC ICM C09K011-06

ICS C09K011-06; C07C225-22; C07D209-88; C07D333-36; C07D401-12;
C07D409-12; C07D413-12; C07D417-12; C07D471-04; H05B033-14

CC 73-11 (Optical, Electron, and Mass Spectroscopy and
Other Related Properties)

Section cross-reference(s): 74

IT 382601-08-3P 382601-09-4P 382601-10-7P 382601-11-8P
382601-12-9P 382601-13-0P

RL: DEV (Device component use); SPN (Synthetic preparation); PREP (Preparation); USES (Uses)
(electroluminescent devices using styrylamines)

L64 ANSWER 22 OF 38 HCAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 2001:619658 HCAPLUS Full-text

DOCUMENT NUMBER: 135:357646

TITLE: Light-Emitting Carbazole Derivatives:

Potential Electroluminescent Materials

AUTHOR(S): Thomas, K. R. Justin; Lin, Jiann T.; Tao,
Yu-Tai; Ko, Chung-Wen

CORPORATE SOURCE: Institute of Chemistry, Academia Sinica,
Taipei, 115, Taiwan

SOURCE: Journal of the American Chemical Society (
2001), 123(38), 9404-9411

CODEN: JACSAT; ISSN: 0002-7863

PUBLISHER: American Chemical Society

10549801-265764-EIC 1700 SEARCH

DOCUMENT TYPE: Journal
 LANGUAGE: English
 OTHER SOURCE(S): CASREACT 135:357646
 ED Entered STN: 28 Aug 2001

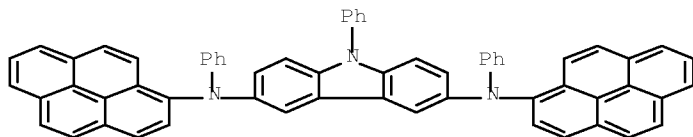
AB Stable carbazole derivs. that contain peripheral diarylamines at the 3- and 6-positions and an Et or aryl substituent at the 9-position of the carbazole moiety have been synthesized via palladium-catalyzed C-N bond formation. These new carbazole compds. (carbs) are amorphous with high glass transition temps. (Tg, 120-194 °C) and high thermal decomposition temps. (Td > 450 °C). The compds. are weakly to moderately luminescent in nature. The emission wavelength ranges from green to blue and is dependent on the substituent at the peripheral nitrogen atoms. Two types of light-emitting diodes were constructed from carb: (I) ITO/carb/TPBI/Mg:Ag and (II) ITO/carb/Alq3/Mg:Ag, where TPBI and Alq3 are 1,3,5-tris(N-phenylbenzimidazol-2-yl)benzene and tris(8-hydroxyquinoline) aluminum, resp. In type I devices, the carb functions as the hole-transporting as well as emitting material. In type II devices, either carb, or Alq3 is the light-emitting material. Several green light-emitting devices exhibit exceptional maximum brightness, and the phys. performance appears to be better than those of typical green light-emitting devices of the structure ITO/diamine/Alq3/Mg:Ag. The relation between the LUMO of the carb and the performance of the light-emitting diode is discussed.

IT 340162-05-2P 373390-02-4P 373390-03-5P
 373390-04-6P

RL: DEV (Device component use); PRP (Properties); SPN (Synthetic preparation); PREP (Preparation); USES (Uses)
 (preparation of light-emitting carbazole derivs. as potential electroluminescent materials)

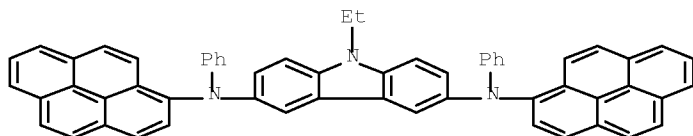
RN 340162-05-2 HCAPLUS

CN 9H-Carbazole-3,6-diamine, N3,N6,9-triphenyl-N3,N6-di-1-pyrenyl-
 (CA INDEX NAME)



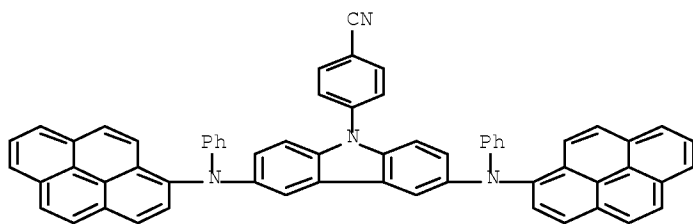
RN 373390-02-4 HCAPLUS

CN 9H-Carbazole-3,6-diamine, 9-ethyl-N3,N6-diphenyl-N3,N6-di-1-pyrenyl-
 (CA INDEX NAME)

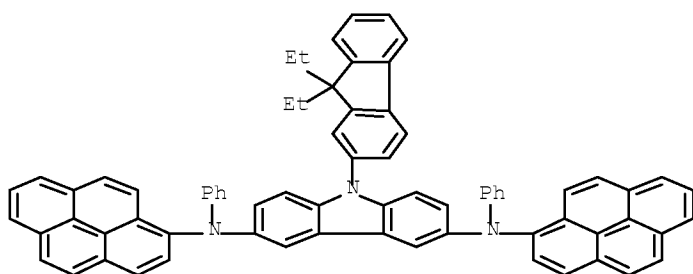


RN 373390-03-5 HCAPLUS

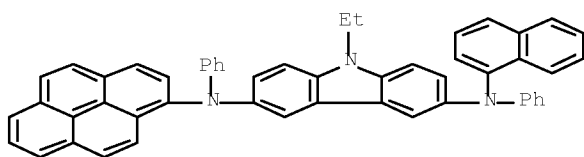
CN Benzonitrile, 4-[3,6-bis(phenyl-1-pyrenylamino)-9H-carbazol-9-yl]-
 (CA INDEX NAME)



RN 373390-04-6 HCAPLUS
 CN 9H-Carbazole-3,6-diamine, 9-(9,9-diethyl-9H-fluoren-2-yl)-N3,N6-diphenyl-N3,N6-di-1-pyrenyl- (CA INDEX NAME)



IT 373390-00-2P
 RL: SPN (Synthetic preparation); PREP (Preparation)
 (preparation of light-emitting carbazole derivs. as potential electroluminescent materials)
 RN 373390-00-2 HCAPLUS
 CN 9H-Carbazole-3,6-diamine, 9-ethyl-N3-1-naphthalenyl-N3,N6-diphenyl-N6-1-pyrenyl- (CA INDEX NAME)



CC 22-9 (Physical Organic Chemistry)
 Section cross-reference(s): 73, 74, 76
 IT 144726-91-OP 340162-05-2P 373390-01-3P
 373390-02-4P 373390-03-5P 373390-04-6P
 373390-05-7P 373390-06-8P
 RL: DEV (Device component use); PRP (Properties); SPN (Synthetic preparation); PREP (Preparation); USES (Uses)
 (preparation of light-emitting carbazole derivs. as potential electroluminescent materials)
 IT 373390-00-2P
 RL: SPN (Synthetic preparation); PREP (Preparation)
 (preparation of light-emitting carbazole derivs. as potential electroluminescent materials)
 REFERENCE COUNT: 59 THERE ARE 59 CITED REFERENCES AVAILABLE

10549801-265764-EIC 1700 SEARCH

FOR THIS RECORD. ALL CITATIONS AVAILABLE
IN THE RE FORMAT

L64 ANSWER 23 OF 38 HCAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 2001:102739 HCAPLUS Full-text

DOCUMENT NUMBER: 134:373783

TITLE: Novel green light-emitting carbazole derivatives: potential electroluminescent materials

AUTHOR(S): Thomas, K. R. Justin; Lin, Jiann T.; Tao, Yu-Tai; Ko, Chung-Wen

CORPORATE SOURCE: Institute of Chemistry, Academia Sinica, Taipei, 115, Taiwan

SOURCE: Advanced Materials (Weinheim, Germany) (2000), 12(24), 1949-1951
CODEN: ADVMEW; ISSN: 0935-9648

PUBLISHER: Wiley-VCH Verlag GmbH

DOCUMENT TYPE: Journal

LANGUAGE: English

ED Entered STN: 12 Feb 2001

AB The authors synthesized new carbazole-based, hole-transporting, green-light-emitting mols. with high glass transition temperature that are potentially useful for applications in electroluminescent devices. The authors describe an efficient synthesis of 3,6-bis(diarylamino)carbazole by Pd-catalyzed amination of 3,6-dibromocarbazole, and the use of the resulting triamines in LED fabrication.

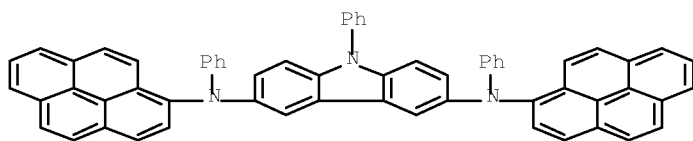
IT 340162-05-2P 340162-07-4P 340162-08-5P

RL: DEV (Device component use); PRP (Properties); SPN (Synthetic preparation); PREP (Preparation); USES (Uses)

(novel green light-emitting carbazole derivs. with potential electroluminescent materials in relation to hole transport)

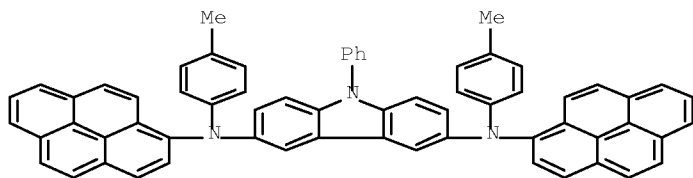
RN 340162-05-2 HCAPLUS

CN 9H-Carbazole-3,6-diamine, N3,N6,9-triphenyl-N3,N6-di-1-pyrenyl- (CA INDEX NAME)



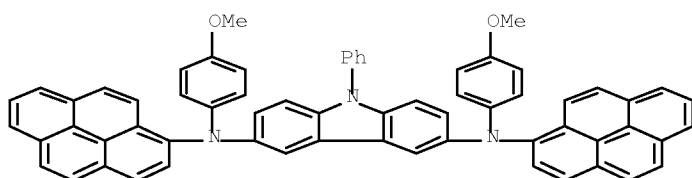
RN 340162-07-4 HCAPLUS

CN 9H-Carbazole-3,6-diamine, N3,N6-bis(4-methylphenyl)-9-phenyl-N3,N6-di-1-pyrenyl- (CA INDEX NAME)



RN 340162-08-5 HCAPLUS

CN 9H-Carbazole-3,6-diamine, N3,N6-bis(4-methoxyphenyl)-9-phenyl-N3,N6-di-1-pyrenyl- (CA INDEX NAME)



CC 73-11 (Optical, Electron, and Mass Spectroscopy and Other Related Properties)

Section cross-reference(s): 22, 67, 72, 74, 76

IT 340162-05-2P 340162-07-4P 340162-08-5P

RL: DEV (Device component use); PRP (Properties); SPN (Synthetic preparation); PREP (Preparation); USES (Uses)

(novel green light-emitting carbazole derivs. with potential electroluminescent materials in relation to hole transport)

REFERENCE COUNT: 29 THERE ARE 29 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L64 ANSWER 24 OF 38 HCAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 1998:764221 HCAPLUS Full-text

DOCUMENT NUMBER: 130:30988

TITLE: Organic compound and electroluminescent device using the same

INVENTOR(S): Senoo, Akihiko; Toshida, Yomishi; Hashimoto, Yuichi; Ueno, Kazunori; Mashimo, Seiji; Urakawa, Shinichi

PATENT ASSIGNEE(S): Canon Kabushiki Kaisha, Japan

SOURCE: Eur. Pat. Appl., 57 pp.

CODEN: EPXXDW

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 879868	A2	19981125	EP 1998-303790	1998 0514
<--				
EP 879868	A3	19990107		
EP 879868	B1	20020403		
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO				
JP 11035532	A	19990209	JP 1998-145179	1998 0512
<--				
JP 3508984	B2	20040322		
US 6517957	B1	20030211	US 1998-78570	1998 0514
<--				
US 20030157364	A1	20030821	US 2002-266602	2002 1009
<--				
US 6858325	B2	20050222		
PRIORITY APPLN. INFO.:			JP 1997-142958	A 1997 0519

10549801-265764-EIC 1700 SEARCH

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 US 1998-78570 A3
 1998
 0514

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OTHER SOURCE(S): MARPAT 130:30988

ED Entered STN: 07 Dec 1998

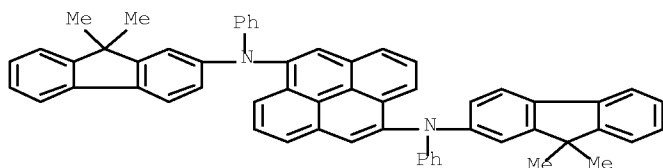
AB Organic compds. are described which are represented by the general formula Ar1(Ar3)N-X-NAr2(Ar4) (X = (un)substituted arylene group or (un)substituted heterocyclic group; and each of at least 2 groups among Ar1, Ar2, Ar3, and Ar4 = (un)substituted fluorenyl, and the remainder = (un)substituted aryl). Electroluminescent devices formed of a pair of electrodes and an organic layer including ≥ 1 of the compds described above interposed between the electrodes are also described. Preparation of the compds entails reacting I-X-I with compds. described by the general formula HNArAr' (Ar, Ar' = desired (un)substituted fluorenyl and (un)substituted aryl groups).

IT 216454-21-6P 216454-57-8P

RL: DEV (Device component use); IMF (Industrial manufacture); PREP (Preparation); USES (Uses)
 (organic diamino compds. and their preparation and electroluminescent devices using them)

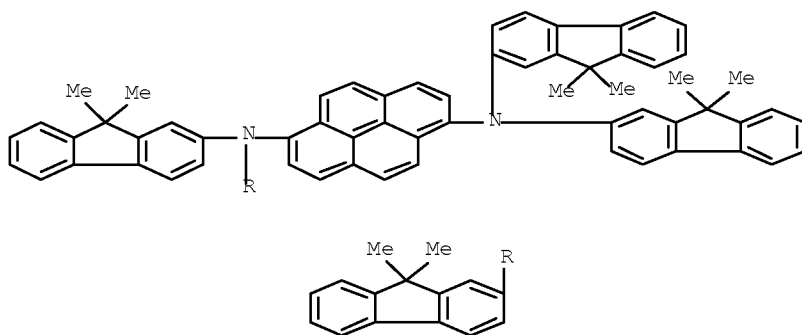
RN 216454-21-6 HCAPLUS

CN 4,9-Pyrenediamine, N4,N9-bis(9,9-dimethyl-9H-fluoren-2-yl)-N4,N9-diphenyl- (CA INDEX NAME)



RN 216454-57-8 HCAPLUS

CN 1,6-Pyrenediamine, N1,N1,N6,N6-tetrakis(9,9-dimethyl-9H-fluoren-2-yl)- (CA INDEX NAME)



IC ICM C09K011-06

ICS H05B033-14

CC 73-11 (Optical, Electron, and Mass Spectroscopy and Other Related Properties)

Section cross-reference(s): 25

IT 216453-88-2P 216453-89-3P 216453-90-6P 216453-91-7P
 216453-92-8P 216453-93-9P 216453-96-2P 216453-97-3P
 216453-98-4P 216453-99-5P 216454-01-2P 216454-02-3P

10549801-265764-EIC 1700 SEARCH

216454-03-4P	216454-05-6P	216454-06-7P	216454-07-8P
216454-08-9P	216454-09-0P	216454-10-3P	216454-11-4P
216454-12-5P	216454-13-6P	216454-14-7P	216454-15-8P
216454-16-9P	216454-17-0P	216454-18-1P	216454-19-2P
216454-20-5P	216454-21-6P	216454-22-7P	216454-23-8P
216454-24-9P	216454-26-1P	216454-27-2P	216454-28-3P
216454-29-4P	216454-30-7P	216454-31-8P	216454-32-9P
216454-34-1P	216454-36-3P	216454-37-4P	216454-41-0P
216454-42-1P	216454-43-2P	216454-44-3P	216454-45-4P
216454-46-5P	216454-47-6P	216454-48-7P	216454-49-8P
216454-50-1P	216454-51-2P	216454-52-3P	216454-53-4P
216454-54-5P	216454-55-6P	216454-56-7P	216454-57-8P
216454-58-9P	216454-59-0P	216454-60-3P	216454-61-4P
216454-62-5P	216454-63-6P	216454-64-7P	216454-65-8P
216454-66-9P	216454-67-0P	216454-68-1P	216454-69-2P
216454-70-5P	216454-71-6P	216454-72-7P	216454-73-8P
216454-74-9P	216454-75-0P	216454-76-1P	216454-77-2P
216454-78-3P	216454-79-4P	216454-80-7P	216454-81-8P
216454-82-9P	216454-83-0P	216454-84-1P	216454-85-2P
216454-86-3P	216454-87-4P	216454-88-5P	216454-89-6P

RL: DEV (Device component use); IMF (Industrial manufacture); PREP

(Preparation); USES (Uses)

(organic diamino compds. and their preparation and electroluminescent devices using them)

L64 ANSWER 25 OF 38 HCAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 1998:651124 HCAPLUS Full-text

DOCUMENT NUMBER: 129:308409

ORIGINAL REFERENCE NO.: 129:62808a,62809a

TITLE: Positive-hole injection material for organic electroluminescent device

INVENTOR(S): Enokida, Toshio; Onikubo, Shunichi; Tamano, Michiko; Okutsu, Satoshi

PATENT ASSIGNEE(S): Toyo Ink Mfg. Co., Ltd., Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 43 pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent

LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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JP 10265773	A	19981006	JP 1997-69911	

1997
0324

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PRIORITY APPLN. INFO.: JP 1997-69911

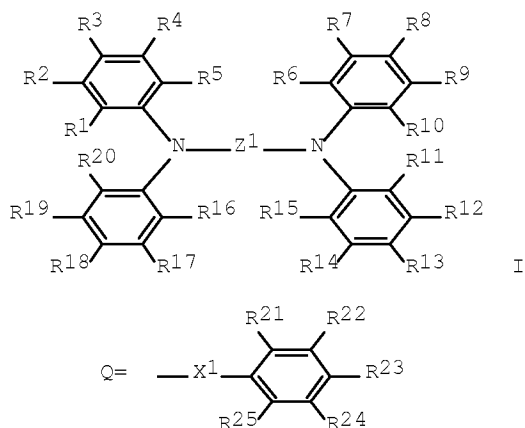
1997
0324

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OTHER SOURCE(S): MARPAT 129:308409

ED Entered STN: 14 Oct 1998

GI

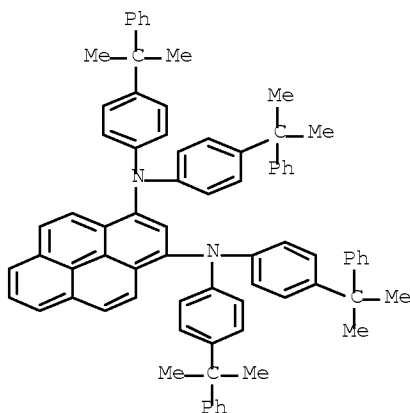


AB The material has a formula I [R1-20 = H, halo, alkyl, alkoxy, thioalkoxy, amino, monocyclic group, polycyclic group, Q; R21-25 = H, halo, alkyl, alkoxy, thioalkoxy, amino, monocyclic group, polycyclic group; R21-25 may form a cycloalkyl ring, aryl ring; X1 = direct bond, alkylene, (CR26R27)xO(CR28R29)y, (CR30R31)xS(CR32R33)y, O, S, CO, SO2, SiR34(R35), NR36, PR37, PO(R38); x, y = 0-8 integer; x = y ≠ 0; Z1 = Ar1, Ar2NR39Ar3, Ar4NR40Ar5NR41Ar6; Ar1-6 = arylene; R26-41 = alkyl, monocyclic group, polycyclic group]. The device shows high luminance, efficiency, long life, and storage stability.

IT 214338-08-6
 RL: DEV (Device component use); MOA (Modifier or additive use);
 USES (Uses)
 (organic electroluminescent device containing aromatic pos.-hole injection material)

RN 214338-08-6 HCAPLUS

CN 1,3-Pyrenediamine, N1,N1,N3,N3-tetrakis[4-(1-methyl-1-phenylethyl)phenyl]- (CA INDEX NAME)



IC ICM C09K011-06

CC 73-12 (Optical, Electron, and Mass Spectroscopy and Other Related Properties)

IT 177799-15-4 205697-02-5 213968-34-4 213968-38-8
 213968-61-7 213968-69-5 214337-93-6 214337-94-7
 214337-95-8 214337-96-9 214337-97-0 214337-98-1
 214338-00-8 214338-02-0 214338-03-1 214338-04-2

10549801-265764-EIC 1700 SEARCH

214338-05-3 214338-06-4 214338-07-5 214338-08-6
 214338-09-7 214338-10-0 214338-11-1 214338-12-2
 214338-13-3 214338-14-4 214338-15-5 214338-16-6
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 214338-21-3 214338-22-4 214338-23-5 214338-24-6
 214338-25-7 214338-26-8 214338-27-9 214338-28-0
 214338-29-1 214338-30-4 214338-31-5 214338-32-6
 214338-33-7 214338-34-8 214338-35-9 214338-36-0
 214338-37-1 214338-38-2 214338-39-3 214338-40-6
 214338-41-7 214338-42-8 214338-43-9 214338-44-0
 214338-45-1 214338-46-2 214338-47-3 214338-48-4
 214338-49-5 214338-50-8 214338-51-9 214338-52-0
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 214338-57-5 214338-58-6 214338-59-7 214338-60-0
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 214338-65-5 214338-66-6 214338-67-7 214338-68-8
 214338-69-9 214338-70-2 214338-71-3 214338-72-4
 214338-73-5 214338-74-6 214338-75-7 214338-76-8
 214338-77-9

RL: DEV (Device component use); MOA (Modifier or additive use);
 USES (Uses)

(organic electroluminescent device containing aromatic pos.-hole
 injection material)

L64 ANSWER 26 OF 38 HCAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 1998:614437 HCAPLUS Full-text

DOCUMENT NUMBER: 129:295965

ORIGINAL REFERENCE NO.: 129:60239a,60242a

TITLE: Organic electroluminescent device with high
 luminance and polycyclic phosphorescent
 compound therefor

INVENTOR(S): Onikubo, Shunichi; Tamano, Michiko; Okutsu,
 Satoshi; Enokida, Toshio

PATENT ASSIGNEE(S): Toyo Ink Mfg. Co., Ltd., Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 59 pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent

LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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JP 10251633	A	19980922	JP 1997-62568	1997 0317
			<--	
JP 3503403	B2	20040308		
EP 866110	A1	19980923	EP 1998-301986	1998 0317
			<--	
EP 866110	B1	20041020		
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO				
EP 934992	A1	19990811	EP 1999-106698	1998 0317
			<--	
EP 934992	B1	20040721		
R: DE, FR, GB				
US 6280859	B1	20010828	US 1998-42569	1998 0317
			<--	
US 20010033944	A1	20011025		

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PRIORITY APPLN. INFO.:

JP 1997-62568

A

1997

0317

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EP 1998-301986

A3

1998

0317

<--

OTHER SOURCE(S): MARPAT 129:295965

ED Entered STN: 29 Sep 1998

GI

* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT

*

AB The claimed compound is I [A = aromatic (condensed) ring, (condensed) heterocycle excluding Q1 (E = H or linkage), bivalent group comprising ≥ 2 kinds of 2-10 above ring systems which are connected directly or via O, N, S, C1-20 chain, nonarom. cycle, where the case of A = Q3 is excluded; Ar1-4 = (condensed) aromatic group; X1-4 = O, S, CO, SO₂, C_xH_{2x}OCyH_{2y} (x, y = 0-20; x + y \neq 0), C2-20 alkyl(id)ene, bivalent alicyclic group; R1-20 = H, halo, alkyl (oxy), aromatic ring, aromatic heterocycle, amino]. Also claimed is an organic electroluminescent device containing I with high luminance and good stability in repeated uses.

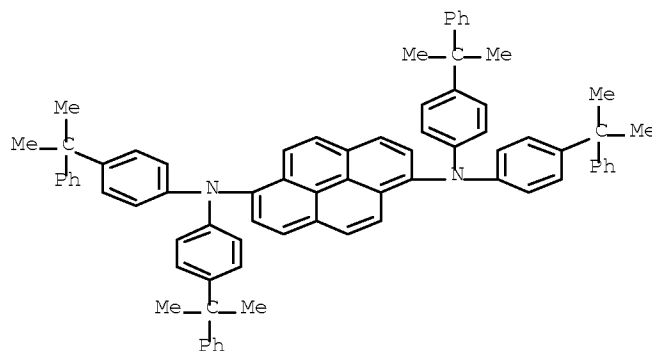
IT 213968-46-8

RL: DEV (Device component use); TEM (Technical or engineered material use); USES (Uses)

(luminescent material; organic electroluminescent device containing polycyclic phosphorescent compound with high luminance)

RN 213968-46-8 HCAPLUS

CN 1,6-Pyrenediamine, N1,N1,N6,N6-tetrakis[4-(1-methyl-1-phenylethyl)phenyl]- (CA INDEX NAME)



IC ICM C09K011-06

CC 73-11 (Optical, Electron, and Mass Spectroscopy and Other Related Properties)

Section cross-reference(s): 25

IT	205697-02-5	213968-34-4	213968-36-6	213968-38-8
	213968-40-2	213968-41-3	213968-42-4	213968-43-5
	213968-44-6	213968-45-7	213968-46-8	213968-47-9
	213968-48-0	213968-49-1	213968-50-4	213968-51-5
	213968-52-6	213968-53-7	213968-54-8	213968-55-9
	213968-56-0	213968-57-1	213968-58-2	213968-59-3
	213968-60-6	213968-61-7	213968-62-8	213968-63-9
	213968-64-0	213968-65-1	213968-66-2	213968-67-3
	213968-68-4	213968-69-5	213968-70-8	213968-71-9

10549801-265764-EIC 1700 SEARCH

213968-73-1	213968-74-2	213968-75-3	213968-76-4
213968-77-5	213968-79-7	213968-80-0	213968-81-1
213968-82-2	213968-83-3	213968-85-5	213968-86-6
213968-87-7	213968-88-8	213968-89-9	213968-91-3
213968-92-4	213968-93-5	213968-94-6	213968-95-7
213968-96-8	213968-97-9	213968-98-0	213968-99-1
213969-00-7	213969-01-8	213969-02-9	213969-03-0
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213969-12-1	213969-13-2	213969-14-3	213969-15-4
213969-16-5	213969-17-6	213969-18-7	213969-19-8
213969-20-1	213969-21-2	213969-22-3	213969-23-4

RL: DEV (Device component use); TEM (Technical or engineered material use); USES (Uses)

(luminescent material; organic electroluminescent device containing polycyclic phosphorescent compound with high luminance)

L64 ANSWER 27 OF 38 HCAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 1998:211295 HCAPLUS Full-text

DOCUMENT NUMBER: 128:263742

ORIGINAL REFERENCE NO.: 128:52077a,52080a

TITLE: organic electroluminescent devices with high durability and using N-phenylaminopyrene derivatives

INVENTOR(S): Tamura, Shinichiro; Ichimura, Mari

PATENT ASSIGNEE(S): Sony Corp., Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 8 pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent

LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
-----	----	-----	-----	
JP 10088122	A	19980407	JP 1996-240885	1996 0912

PRIORITY APPLN. INFO.: <-- JP 1996-240885 1996
0912

<--

OTHER SOURCE(S): MARPAT 128:263742

ED Entered STN: 15 Apr 1998

GI

* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT

*

AB The devices, showing high luminance efficiency, contain N-phenylaminopyrene derivs. preferably represented by ≥ 1 of I-III [R1-3 = H, alkyl (oxy), halo, and/or (un)substituted Ph] as hole-transporting materials in emitting layers.

IT 142827-48-3P 205037-20-3P 205037-22-5P

205037-23-6P 205037-24-7P 205037-25-8P

RL: DEV (Device component use); PNU (Preparation, unclassified);

TEM (Technical or engineered material use); PREP (Preparation);

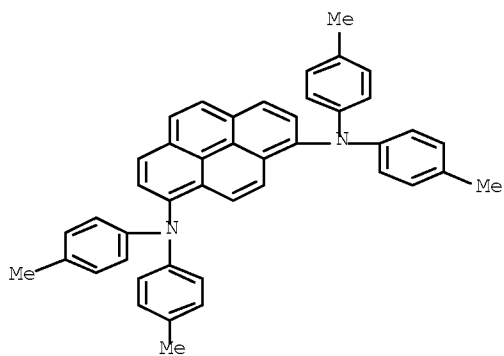
USES (Uses)

(in preparation of N-phenylaminopyrene derivs. for electroluminescent devices with excellent durability)

RN 142827-48-3 HCAPLUS

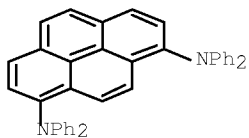
CN 1,8-Pyrenediamine, N,N,N',N'-tetrakis(4-methylphenyl)- (9CI) (CA

INDEX NAME)



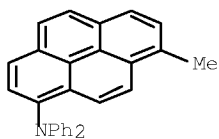
RN 205037-20-3 HCAPLUS

CN 1,8-Pyrenediamine, N1,N1,N8,N8-tetraphenyl- (CA INDEX NAME)



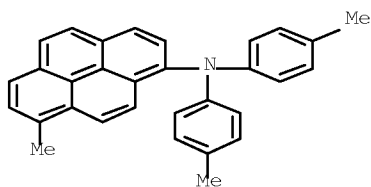
RN 205037-22-5 HCAPLUS

CN 1-Pyrenamine, 8-methyl-N,N-diphenyl- (CA INDEX NAME)



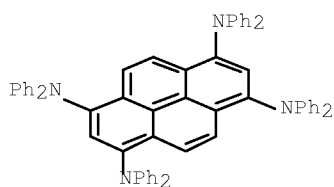
RN 205037-23-6 HCAPLUS

CN 1-Pyrenamine, 8-methyl-N,N-bis(4-methylphenyl)- (CA INDEX NAME)



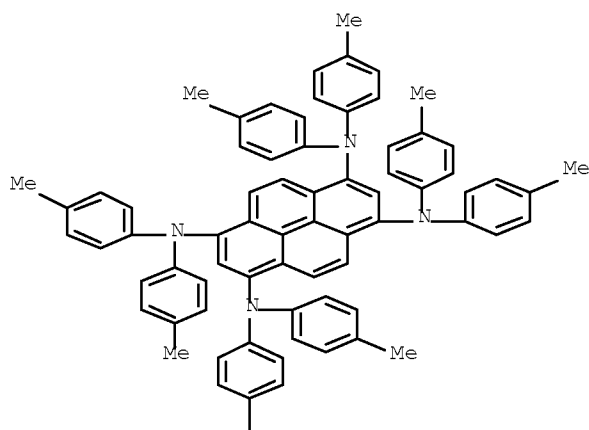
RN 205037-24-7 HCAPLUS

CN 1,3,6,8-Pyrenetetramine, N1,N1,N3,N3,N6,N6,N8,N8-octaphenyl- (CA INDEX NAME)



RN 205037-25-8 HCAPLUS
 CN 1,3,6,8-Pyrenetetramine, N1,N1,N3,N3,N6,N6,N8,N8-octakis(4-methylphenyl)- (CA INDEX NAME)

PAGE 1-A



PAGE 2-A



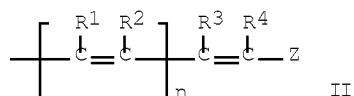
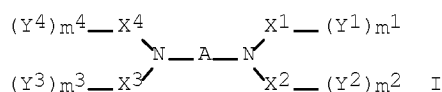
IC ICM C09K011-06
 ICS H05B033-14; H05B033-22
 CC 73-11 (Optical, Electron, and Mass Spectroscopy and
 Other Related Properties)
 Section cross-reference(s): 25
 IT 142827-48-3P 205037-20-3P 205037-22-5P
 205037-23-6P 205037-24-7P 205037-25-8P
 RL: DEV (Device component use); PNU (Preparation, unclassified);
 TEM (Technical or engineered material use); PREP (Preparation);
 USES (Uses)
 (in preparation of N-phenylaminopyrene derivs. for
 electroluminescent devices with excellent durability)

L64 ANSWER 28 OF 38 HCAPLUS COPYRIGHT 2008 ACS on STN
 ACCESSION NUMBER: 1997:678708 HCAPLUS Full-text
 DOCUMENT NUMBER: 128:17237
 ORIGINAL REFERENCE NO.: 128:3255a,3258a

10549801-265764-EIC 1700 SEARCH

TITLE: Organic electroluminescent device elements
INVENTOR(S): Enokida, Toshio; Tamano, Michiko
PATENT ASSIGNEE(S): Toyo Ink Mfg. Co., Ltd., Japan
SOURCE: Jpn. Kokai Tokkyo Koho, 33 pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
-----	----	-----	-----	
JP 09268284	A	19971014	JP 1996-78501	1996 0401
			<--	
JP 3564859	B2	20040915		
PRIORITY APPLN. INFO.:			JP 1996-78501	1996 0401
			<--	
OTHER SOURCE(S):	MARPAT	128:17237		
ED Entered STN:	25 Oct 1997			
GI				

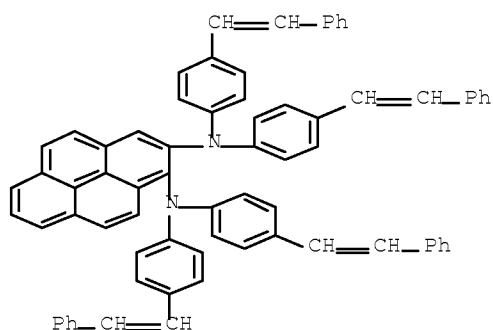


AB The elements comprise the phosphors I containing II; I [A, X1-4 = C2-20 arylene; m1, m2, m3, m4 = 0-2; Y1-4 = II] II [R1-4 = H, (un)substituted alkyl, (un)substituted aryl, CN; Z = (un)substituted aryl; n = 0, 1]; a tertiary amine derivative (B1,2N)G(NB3,4) formed between the phosphor and the anode [B1-4 = (un)substituted C6-20 aryl; G = (un)substituted arylene]; and a metal complex Q1,2GaL formed between the phosphor and the cathode [Q1,2 = (un)substituted hydrobenzoquinoline derivative; L = halo, (un)substituted (cyclo)alkyl, aryl cong. optional (un)substituted N, OR (R ≡ L)].

IT 198903-47-8
RL: DEV (Device component use); USES (Uses)
(organic electroluminescent device elements)

RN 198903-47-8 HCAPLUS

CN 1,2-Pyrenediamine, N1,N1,N2,N2-tetrakis[4-(2-phenylethenyl)phenyl]-
(CA INDEX NAME)



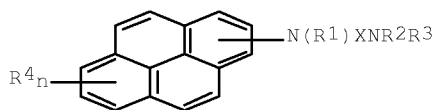
IC ICM C09K011-06
ICS H05B033-14
CC 73-5 (Optical, Electron, and Mass Spectroscopy and Other
Related Properties)
IT 517-51-1 905-62-4 980-26-7 1047-16-1 1499-10-1 2085-33-8
7520-01-6 13978-85-3 14642-34-3 15082-28-7 38215-36-0
51325-91-8 58361-82-3 58473-78-2 61843-06-9 65181-78-4
73276-70-7 99762-78-4 123847-85-8 139255-17-7 143010-15-5
146162-54-1 146162-63-2 150405-69-9 151026-65-2
164259-44-3 166444-98-0 185505-35-5 186965-89-9
188049-36-7 188049-37-8 188049-39-0 188049-41-4
189263-95-4 198903-35-4 198903-36-5 198903-37-6
198903-38-7 198903-39-8 198903-40-1 198903-41-2
198903-42-3 198903-43-4 198903-44-5 198903-45-6
198903-46-7 198903-47-8 198903-48-9 198903-49-0
198903-50-3 198903-51-4 198903-52-5 198903-53-6
198903-54-7 198903-55-8 198903-56-9 198903-57-0
198903-58-1 198903-59-2 198903-60-5 198903-61-6
198903-62-7 198903-63-8 198903-64-9
RL: DEV (Device component use); USES (Uses)
(organic electroluminescent device elements)

L64 ANSWER 29 OF 38 HCAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 1997:72156 HCAPLUS Full-text
DOCUMENT NUMBER: 126:96671
ORIGINAL REFERENCE NO.: 126:18533a,18536a
TITLE: Organic electroluminescent device
INVENTOR(S): Nagai, Kazukyo; Adachi, Chihaya; Tamoto,
Nozomi; Anzai, Mitsutoshi; Murakami, Yasuo
PATENT ASSIGNEE(S): Ricoh KK, Japan; Hodogaya Chemical Co., Ltd.
SOURCE: Jpn. Kokai Tokkyo Koho, 22 pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 08302341	A	19961119	JP 1995-127149	1995 0427
JP 3537915	B2	20040614	JP 1995-127149	1995 0427

PRIORITY APPLN. INFO.:
OTHER SOURCE(S): MARPAT 126:96671

ED Entered STN: 01 Feb 1997
GI



I

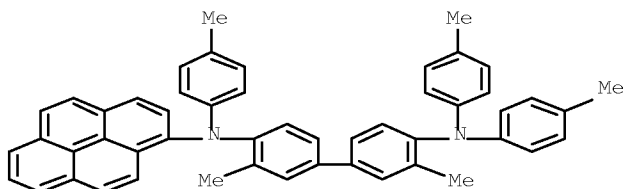
AB An organic electroluminescent device comprise a organic multilayer structure sandwiched between a cathode and an anode, wherein the multilayer contains a light emitting layer including a compound represented by I [R1-3 = independently alkyl or aryl (un)substituted groups; R4 = H, alkyl, and alkoxy; n = integer 1-3; X = (un)substituted arylene or divalent heterocyclic groups].

IT 168638-10-6 171889-69-3

RL: DEV (Device component use); PEP (Physical, engineering or chemical process); PROC (Process); USES (Uses)
(organic electroluminescent device)

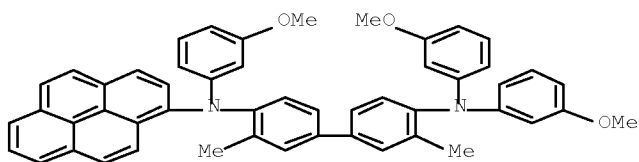
RN 168638-10-6 HCAPLUS

CN [1,1'-Biphenyl]-4,4'-diamine, 3,3'-dimethyl-N,N,N'-tris(4-methylphenyl)-N'-1-pyrenyl- (9CI) (CA INDEX NAME)



RN 171889-69-3 HCAPLUS

CN [1,1'-Biphenyl]-4,4'-diamine, N,N,N'-tris(3-methoxyphenyl)-3,3'-dimethyl-N'-1-pyrenyl- (9CI) (CA INDEX NAME)



IC ICM C09K011-06

ICS H05B033-14

CC 73-11 (Optical, Electron, and Mass Spectroscopy and Other Related Properties)

IT 134917-82-1 148044-09-1 157019-71-1 168638-08-2
168638-09-3 168638-10-6 171889-69-3
185556-22-3

RL: DEV (Device component use); PEP (Physical, engineering or chemical process); PROC (Process); USES (Uses)
(organic electroluminescent device)

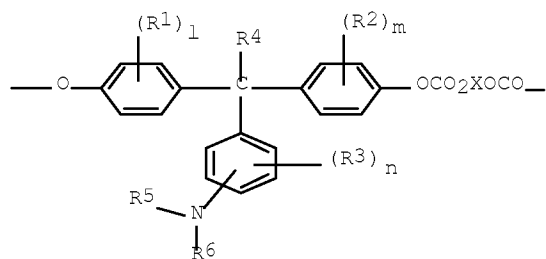
L64 ANSWER 30 OF 38 HCAPLUS COPYRIGHT 2008 ACS on STN

10549801-265764-EIC 1700 SEARCH

ACCESSION NUMBER: 1997:14744 HCAPLUS Full-text
 DOCUMENT NUMBER: 126:75353
 ORIGINAL REFERENCE NO.: 126:14591a,14594a
 TITLE: Aromatic polycarbonates and preparation method
 INVENTOR(S): Suzuki, Tetsuo; Sasaki, Masaomi; Tamura, Hiroshi; Shimada, Tomoyuki; Oota, Masabumi; Anzai, Mitsutoshi; Imai, Akihiro
 PATENT ASSIGNEE(S): Ricoh Kk, Japan; Hodogaya Chemical Co Ltd
 SOURCE: Jpn. Kokai Tokkyo Koho, 17 pp.
 CODEN: JKXXAF
 DOCUMENT TYPE: Patent
 LANGUAGE: Japanese
 FAMILY ACC. NUM. COUNT: 4
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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JP 08269183	A	19961015	JP 1995-269175	1995 0922
US 5747204	A	19980505	US 1996-665702	1996 0618
US 5830980	A	19981103	US 1997-956284	1997 1023
PRIORITY APPLN. INFO.:			JP 1994-315722	A 1994 1125
			JP 1994-315721	A 1994 1125
			JP 1995-269175	A 1995 0922
			JP 1995-269176	A 1995 0922
			US 1995-562154	B2 1995 1122
			JP 1995-333992	A 1995 1129
			US 1996-665702	A3 1996 0618

ED Entered STN: 11 Jan 1997
 GI



I

AB The title polymers, bearing the repeating units of I [R1-R3 = (un)substituted alkyl, halo; R4 = H, (un)substituted alkyl; R5, R6 = (un)substituted aromatic hydrocarbyl; X = aliphatic (cyclo)hydrocarbylene; l, m, n = 0-4], are prepared by polymerization of tertiary amino group-containing biphenols with ClCO2XO2CCl. The polymers are useful for electrophotog. and electroluminescent materials (no data). Thus, polymerization of 1,1-bis(4-hydroxyphenyl)-1- (4-di-p-tolylaminophenyl)ethane with diethylene glycol bis(chloroformate) gave a polymer having Tg 119°, and Mw 46,000.

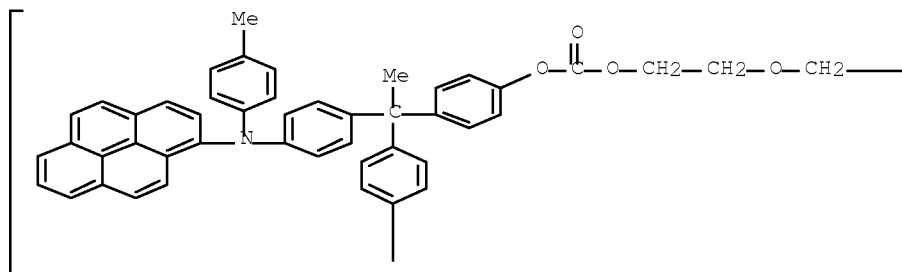
IT 184363-47-1P 184363-53-9P 184874-72-4P
184374-80-4P 184874-81-5P 184874-82-6P
184874-83-7P

RL: SPN (Synthetic preparation); PREP (Preparation)
(aromatic polycarbonates and their preparation method for
electrophotog. and electroluminescent materials)

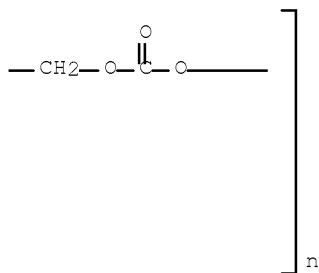
RN 184363-47-1 HCAPLUS

CN Poly[oxycarbonyloxy-1,2-ethanediyl-1,2-ethanediyl-oxycarbonyloxy-
1,4-phenylene[1-[4-[(4-methylphenyl)-1-
pyrenylamino]phenyl]ethylidene]-1,4-phenylene] (9CI) (CA INDEX
NAME)

PAGE 1-A



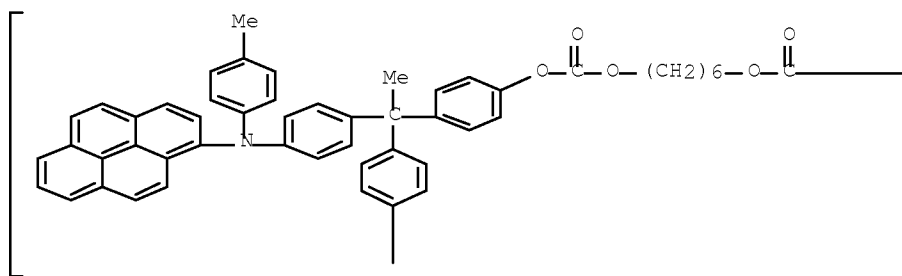
PAGE 1-B



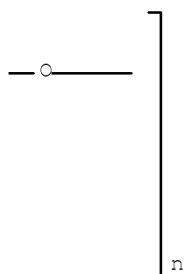
RN 184363-53-9 HCAPLUS

CN Poly[oxy-carbonyloxy-1,6-hexanediyl-oxy-carbonyloxy-1,4-phenylene[1-[4-[(4-methylphenyl)-1-pyrenylamino]phenyl]ethylidene]-1,4-phenylene] (9CI) (CA INDEX NAME)

PAGE 1-A



PAGE 1-B



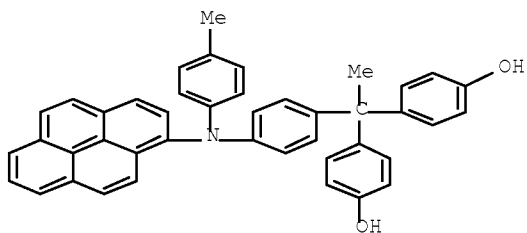
RN 184874-72-4 HCAPLUS

CN Carbonochloridic acid, oxydi-2,1-ethanediyl ester, polymer with 4,4'-[1-[4-[(4-methylphenyl)-1-pyrenylamino]phenyl]ethylidene]bis[phenol] (9CI) (CA INDEX NAME)

CM 1

CRN 174829-95-9

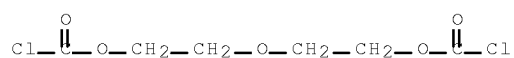
CMF C43 H33 N O2



CM 2

CRN 106-75-2

CMF C6 H8 Cl2 O5



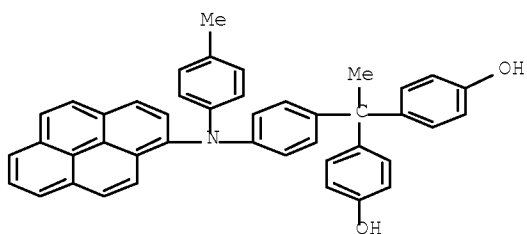
RN 184874-80-4 HCAPLUS

CN Carbonochloridic acid, 1,6-hexanediyl ester, polymer with
4,4'-[1-[4-[(4-methylphenyl)-1-pyrenylamino]phenyl]ethylidene]bis[
phenol] (9CI) (CA INDEX NAME)

CM 1

CRN 174829-95-9

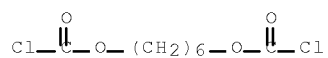
CMF C43 H33 N O2



CM 2

CRN 2916-20-3

CMF C8 H12 Cl2 O4



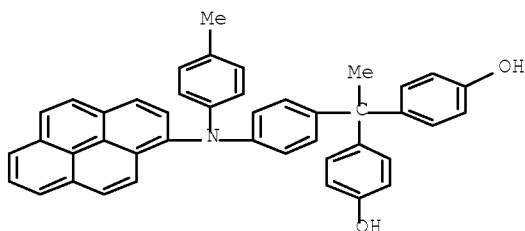
RN 184874-81-5 HCAPLUS

10549801-265764-EIC 1700 SEARCH

CN Carbonochloridic acid, (1-methylethylidene)di-4,1-phenylene ester, polymer with 4,4'-[1-[4-[(4-methylphenyl)-1-pyrenylamino]phenyl]ethylidene]bis[phenol] (9CI) (CA INDEX NAME)

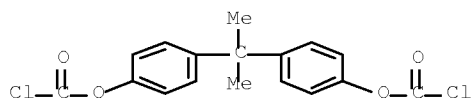
CM 1

CRN 174829-95-9
CMF C43 H33 N O2



CM 2

CRN 2024-88-6
CMF C17 H14 Cl2 O4



RN 184874-82-6 HCAPLUS
CN Poly[oxy carbonyloxy-1,4-phenylene(1-methylethylidene)-1,4-phenyleneoxy carbonyloxy-1,4-phenylene[1-[4-[(4-methylphenyl)-1-pyrenylamino]phenyl]ethylidene]-1,4-phenylene] (9CI) (CA INDEX NAME)

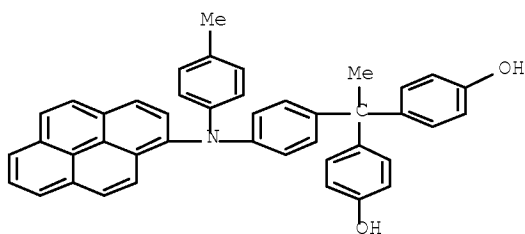
* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT
*

* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT
*

RN 184874-83-7 HCAPLUS
CN Phenol, 4,4'-[1-[4-[(4-methylphenyl)-1-pyrenylamino]phenyl]ethylidene]bis-, polymer with α -(chlorocarbonyl)- ω -(chlorocarbonyl)oxy]poly(oxy-1,4-butanediyl) (9CI) (CA INDEX NAME)

CM 1

CRN 174829-95-9
CMF C43 H33 N O2

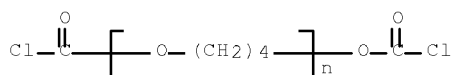


CM 2

CRN 31345-17-2

CMF (C4 H8 O)n C2 C12 O3

CCI PMS



IC ICM C08G064-04
 ICS C08G064-24; G03G005-05; H05B033-22
 CC 35-5 (Chemistry of Synthetic High Polymers)
 Section cross-reference(s): 73, 74
 IT 184363-20-0P 184363-43-7P 184363-45-9P 184363-47-1P
 184363-49-3P 184363-51-7P 184363-53-9P 184363-57-3P
 184874-70-2P 184874-71-3P 184874-72-4P 184874-73-5P
 184874-74-6P 184874-75-7P 184874-76-8P 184874-77-9P
 184874-78-0P 184874-79-1P 184874-80-4P
 184874-81-5P 184874-82-6P 184874-83-7P
 207454-73-7P
 RL: SPN (Synthetic preparation); PREP (Preparation)
 (aromatic polycarbonates and their preparation method for
 electrophotog. and electroluminescent materials)

L64 ANSWER 31 OF 38 HCAPLUS COPYRIGHT 2008 ACS on STN
 ACCESSION NUMBER: 1996:641144 HCAPLUS Full-text
 DOCUMENT NUMBER: 125:288355
 ORIGINAL REFERENCE NO.: 125:53695a,53698a
 TITLE: Organic electroluminescent device
 INVENTOR(S): Hosokawa, Chishio; Kawamura, Hisayuki
 PATENT ASSIGNEE(S): Idemitsu Kosan Co, Japan
 SOURCE: Jpn. Kokai Tokkyo Koho, 25 pp.
 CODEN: JKXXAF
 DOCUMENT TYPE: Patent
 LANGUAGE: Japanese
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 08199162	A	19960806	JP 1995-10918	1995 0126
JP 3506281	B2	20040315		
JP 2004006379	A	20040108	JP 2003-176314	

10549801-265764-EIC 1700 SEARCH

2003
0620

JP 2006128715 A 20060518 JP 2006-9511

2006
0118

PRIORITY APPLN. INFO.: JP 1995-10918 A3
1995
0126

JP 2003-176314 A3
2003
0620

OTHER SOURCE(S): MARPAT 125:288355

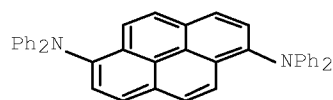
ED Entered STN: 31 Oct 1996

AB An organic electroluminescent device, having prolonged stability, suited for use as displays, wherein the recombination region and/or electroluminescent region, sandwiched between a pair of electrodes, contains 0.1-8 % of fluorescent dopant(s) selected from the compound represented by Ar1N(Ar2)Ar3 [Ar1-3 = C1-10 alkyl, C6-30 aryl, and heterocyclic; one of Ar1-3 is C_≥12 condensed polycyclic hydrocarbon] and Ar4(Ar6)NAr8N(Ar7)Ar5 [Ar4-7 = C1-10 alkyl, C6-30 aryl, and heterocyclic; Ar8 = C6-30 arylene, or divalent heterocyclic; one of Ar4-8 is C_≥12 condensed polycyclic hydrocarbon].

IT 76656-53-6
RL: DEV (Device component use); MOA (Modifier or additive use);
USES (Uses)
(organic electroluminescent device)

RN 76656-53-6 HCAPLUS

CN 1,6-Pyrenediamine, N1,N1,N6,N6-tetraphenyl- (CA INDEX NAME)



IC ICM C09K011-06

ICS H05B033-14

CC 73-11 (Optical, Electron, and Mass Spectroscopy and Other Related Properties)

IT 70782-27-3 76656-53-6 123847-85-8 124729-98-2
139255-20-2 139255-24-6 142289-08-5 182426-74-0
182426-75-1

RL: DEV (Device component use); MOA (Modifier or additive use);
USES (Uses)
(organic electroluminescent device)

L64 ANSWER 32 OF 38 HCAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 1996:606283 HCAPLUS Full-text

DOCUMENT NUMBER: 125:342202

ORIGINAL REFERENCE NO.: 125:63709a,63712a

TITLE: Durability characteristics of aminopyrene dimer molecules as an emitter in organic multilayered electroluminescent diodes
AUTHOR(S): Adachi, Chihaya; Nagai, Kazukiyo; Tamoto, Nazomu

CORPORATE SOURCE: Chemical Products R&D Center, Ricoh Co. Ltd., Shizuoka, 410, Japan

SOURCE: Japanese Journal of Applied Physics, Part 1: Regular Papers, Short Notes & Review Papers (1996), 35(9A), 4819-4825

10549801-265764-EIC 1700 SEARCH

CODEN: JAPNDE; ISSN: 0021-4922

PUBLISHER: Japanese Journal of Applied Physics

DOCUMENT TYPE: Journal

LANGUAGE: English

ED Entered STN: 11 Oct 1996

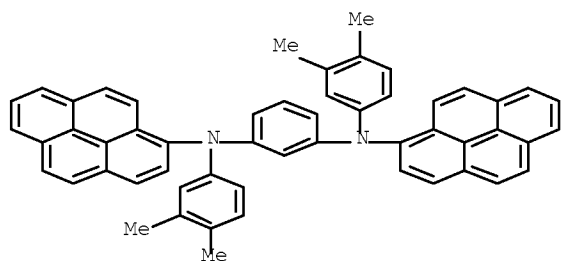
AB The authors report the structure design of emitter mols. using aminopyrene dimers for obtaining durable organic electroluminescent (EL) diodes. Using 18 kinds of emitter mols. having a variety of substituents and linking groups, the authors studied the durability of the cell structure of the anode/hole transport layer/emitter layer/electron transport layer 2/electron transport layer 1/cathode. The chemical structures of the emitter mols. strongly influenced the durability of the EL devices under continuous d.c. operation. The authors observed no direct relations between m.p. (Tm), glass transition temperature (Tg), ionization potential (Ip), electron affinity (Ea) of emitter layers and EL device durabilities. The effect of the substituent groups of emitter mols. on EL device durability suggests that the chemical stability of the emitter mols. largely influences EL device durability.

IT 157357-78-3 157357-83-0

RL: DEV (Device component use); PRP (Properties); USES (Uses)
(durability characteristics of aminopyrene dimer mols. as emitter in organic multilayered electroluminescent diodes)

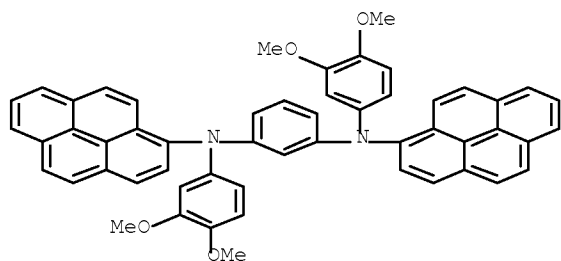
RN 157357-78-3 HCAPLUS

CN 1,3-Benzenediamine, N,N'-bis(3,4-dimethylphenyl)-N,N'-di-1-pyrenyl-
(9CI) (CA INDEX NAME)



RN 157357-83-0 HCAPLUS

CN 1,3-Benzenediamine, N,N'-bis(3,4-dimethoxyphenyl)-N,N'-di-1-pyrenyl- (9CI) (CA INDEX NAME)



CC 73-11 (Optical, Electron, and Mass Spectroscopy and Other Related Properties)

IT 157357-76-1 157357-77-2 157357-78-3 157357-79-4
157357-80-7 157357-81-8 157357-82-9 157357-83-0
157357-85-2 157357-86-3 157357-87-4 183889-30-7D, derivs.
183889-31-8D, derivs. 183889-32-9 183889-33-0D, derivs.
183889-34-1D, derivs. 183889-35-2D, derivs. 183889-36-3D,
derivs.

RL: DEV (Device component use); PRP (Properties); USES (Uses)

10549801-265764-EIC 1700 SEARCH

(durability characteristics of aminopyrene dimer mols. as
emitter in organic multilayered electroluminescent diodes)

L64 ANSWER 33 OF 38 HCAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 1996:273378 HCAPLUS Full-text

DOCUMENT NUMBER: 124:302069

ORIGINAL REFERENCE NO.: 124:55735a,55738a

TITLE: Organic electroluminescent device

INVENTOR(S): Shirota, Yasuhiko; Nakatani, Kenji; Inoe,
Tetsuji; Nanba, Noryoshi

PATENT ASSIGNEE(S): TDK Electronics Co., Ltd., Japan; TDK Corp.

SOURCE: Jpn. Kokai Tokkyo Koho, 19 pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent

LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

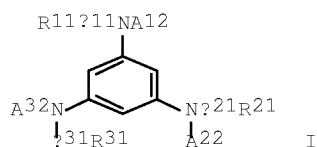
PATENT INFORMATION:

PATENT NO. -----	KIND ----	DATE -----	APPLICATION NO. -----	DATE
JP 08048974	A	19960220	JP 1994-207970	1994 0809
			<--	
JP 3471910	B2	20031202	JP 1994-207970	1994 0809
PRIORITY APPLN. INFO.:				
			<--	

OTHER SOURCE(S): MARPAT 124:302069

ED Entered STN: 10 May 1996

GI



AB The organic electroluminescent device comprises a layer containing electron injection/transport compound and trisarylamino benzene represented by I [Φ 11, Φ 21, and Φ 31 = divalent aromatic residue; R11, R21, and R31 = N Φ 01 Φ 02, NH Φ 01, NR01 Φ 01, Φ 01, O Φ 01 or S Φ 01; Φ 01, Φ 02 = monovalent aromatic residue; R01 = alkyl; one of R01, R02, and R03 = N Φ 01 Φ 02, NH Φ 01, or NR01 Φ 01; A12, A22, and A32 = monovalent aromatic residue, alkyl, or H].

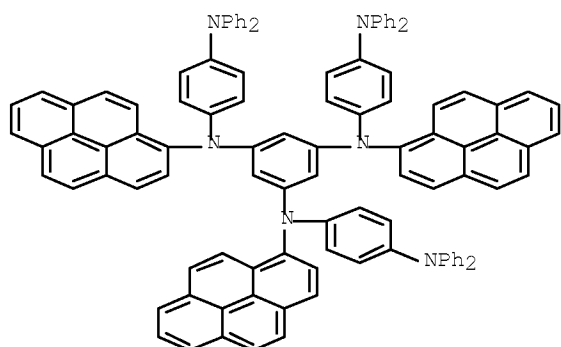
IT 162879-30-3

RL: DEV (Device component use); USES (Uses)

(organic electroluminescent device having layer containing
trisarylamino benzene derivative)

RN 162879-30-3 HCAPLUS

CN 1,3,5-Benzenetriamine, N,N',N''-tris[4-(diphenylamino)phenyl]-
N,N',N''-tri-1-pyrenyl- (9CI) (CA INDEX NAME)



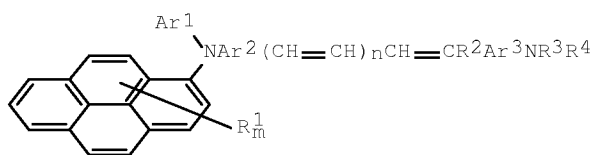
IC ICM C09K011-06
ICS H05B033-14
CC 73-11 (Optical, Electron, and Mass Spectroscopy and
Other Related Properties)
Section cross-reference(s): 76
IT 153521-90-5 153521-91-6 162879-22-3 162879-23-4
162879-24-5 162879-25-6 162879-26-7 162879-27-8
162879-28-9 162879-29-0 162879-30-3 162879-31-4
162879-32-5 176178-81-7
RL: DEV (Device component use); USES (Uses)
(organic electroluminescent device having layer containing
tris(phenylamino)benzene derivative)

L64 ANSWER 34 OF 38 HCAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 1995:958741 HCAPLUS Full-text
DOCUMENT NUMBER: 124:40979
ORIGINAL REFERENCE NO.: 124:7553a,7556a
TITLE: Field-effect electroluminescent device
INVENTOR(S): Tamoto, Nozomi; Tanaka, Chiaki; Nagai,
Kazukyo; Adachi, Chihaya; Sakon, Hirota
PATENT ASSIGNEE(S): Ricoh Kk, Japan
SOURCE: Jpn. Kokai Tokkyo Koho, 20 pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 07249490	A	19950926	JP 1994-64508	1994 0308

PRIORITY APPLN. INFO.: <--
JP 1994-64508
1994
0308

OTHER SOURCE(S): MARPAT 124:40979
ED Entered STN: 02 Dec 1995
GI



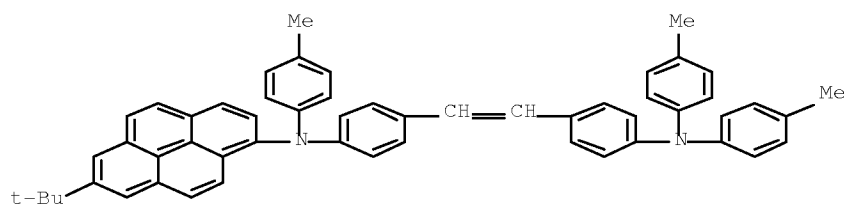
AB The title device has ≥ 1 layer containing a pyrenyl-containing olefin compound I [R1 = H, lower alkyl, alkoxy; R2 = H, cyano, alkoxy, carbonyl, (substituted) alkyl, (substituted) phenyl; R3-4, Ar1 = (substituted) alkyl, (substituted) carbocyclic aromatic group; Ar2-3 = (substituted) carbocyclic aromatic group; m = 1-3; n = 0, 1]. The layer containing I may be a hole-transporting layer or a light-emitting layer. The device showed low working voltage and high luminance.

IT 171812-48-9 171812-49-0

RL: DEV (Device component use); USES (Uses)
(field-effect electroluminescent devices employing
pyrenyl-containing olefin compds.)

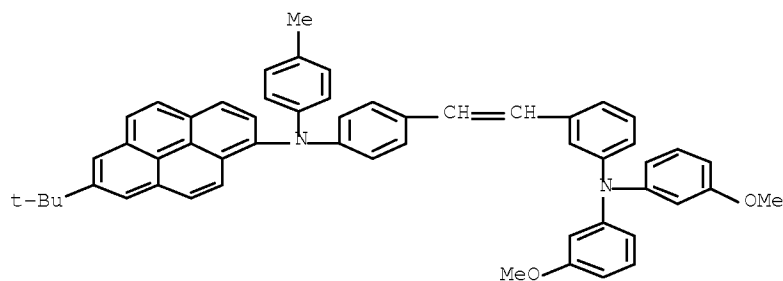
RN 171812-48-9 HCAPLUS

CN 1-Pyrenamine, N-[4-[2-[4-[bis(4-methylphenyl)amino]phenyl]ethenyl]
phenyl]-7-(1,1-dimethylethyl)-N-(4-methylphenyl)- (CA INDEX NAME)



RN 171812-49-0 HCAPLUS

CN 1-Pyrenamine, N-[4-[2-[3-[bis(3-methoxyphenyl)amino]phenyl]ethenyl]
phenyl]-7-(1,1-dimethylethyl)-N-(4-methylphenyl)- (CA INDEX
NAME)



IC ICM H05B033-14

ICS C07C229-44; C09K011-06

CC 73-11 (Optical, Electron, and Mass Spectroscopy and
Other Related Properties)

Section cross-reference(s): 25

IT 168638-17-3 168638-19-5 168638-22-0 171812-48-9
171812-49-0

RL: DEV (Device component use); USES (Uses)

10549801-265764-EIC 1700 SEARCH

(field-effect electroluminescent devices employing
pyrenyl-containing olefin compds.)

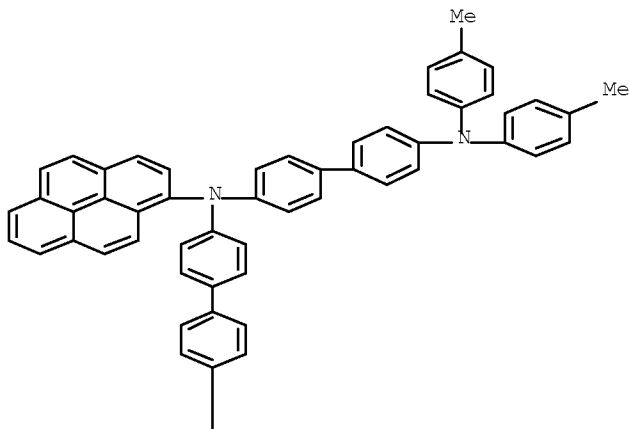
L64 ANSWER 35 OF 38 HCAPLUS COPYRIGHT 2008 ACS on STN
 ACCESSION NUMBER: 1995:867611 HCAPLUS Full-text
 DOCUMENT NUMBER: 123:285572
 ORIGINAL REFERENCE NO.: 123:51170h,51171a
 TITLE: Preparation of pyrene derivatives as
 electroluminescent materials
 INVENTOR(S): Tamoto, Nozomi; Nagai, Kazukyo; Adachi,
 Chihaya; Sakon, Hirota
 PATENT ASSIGNEE(S): Ricoh Kk, Japan
 SOURCE: Jpn. Kokai Tokkyo Koho, 13 pp.
 CODEN: JKXXAF
 DOCUMENT TYPE: Patent
 LANGUAGE: Japanese
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
-----	----	-----	-----	
JP 07101911	A	19950418	JP 1993-271360	1993 1004
			<--	
JP 3549555	B2	20040804		
PRIORITY APPLN. INFO.:			JP 1993-271360	1993 1004
			<--	
OTHER SOURCE(S):		MARPAT 123:285572		
ED Entered STN:		20 Oct 1995		
GI				

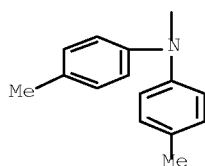
* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT
 *

AB The title compds. I [R1 - R3 = halo, cyano, etc.; l = 0 - 9; m = 0 - 4; n = 0 - 5] are prepared An electroluminescent element containing the title compound II (preparation given) gave emission with high luminance for 1 mo.
 IT 169195-00-0P 169195-01-1P 169195-02-2P
 RL: DEV (Device component use); SPN (Synthetic preparation); PREP (Preparation); USES (Uses)
 (preparation of pyrene derivs. as electroluminescent materials)
 RN 169195-00-0 HCAPLUS
 CN [1,1'-Biphenyl]-4,4'-diamine, N-[4'-[bis(4-methylphenyl)amino][1,1'-biphenyl]-4-yl]-N',N'-bis(4-methylphenyl)-N-1-pyrenyl- (9CI) (CA INDEX NAME)

PAGE 1-A

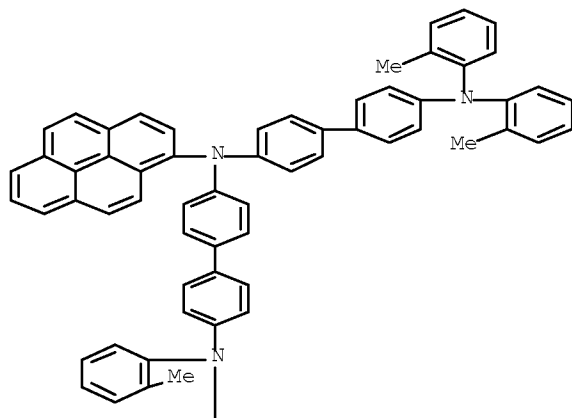


PAGE 2-A

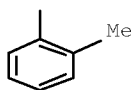


RN 169195-01-1 HCAPLUS
 CN [1,1'-Biphenyl]-4,4'-diamine, N-[4'-[bis(2-methylphenyl)amino][1,1'-biphenyl]-4-yl]-N',N'-bis(2-methylphenyl)-N-1-pyrenyl- (9CI) (CA INDEX NAME)

PAGE 1-A

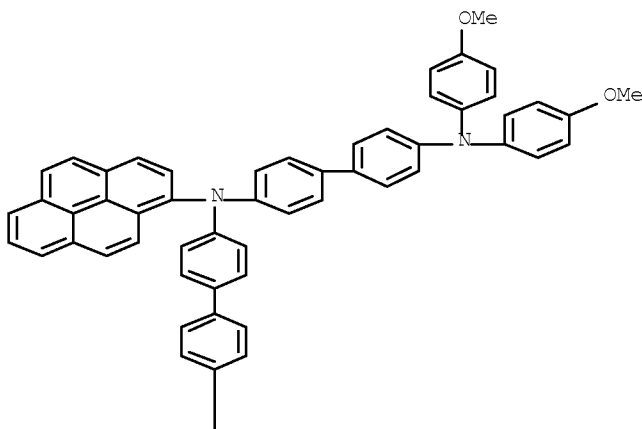


PAGE 2-A

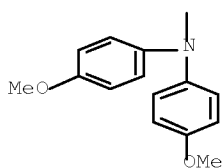


RN 169195-02-2 HCAPLUS
 CN [1,1'-Biphenyl]-4,4'-diamine, N-[4'-[bis(4-methoxyphenyl)amino][1,1'-biphenyl]-4-yl]-N',N'-bis(4-methoxyphenyl)-N-1-pyrenyl- (9CI) (CA INDEX NAME)

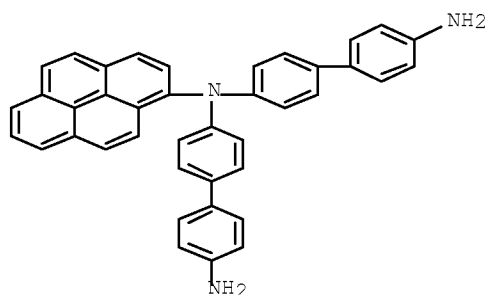
PAGE 1-A



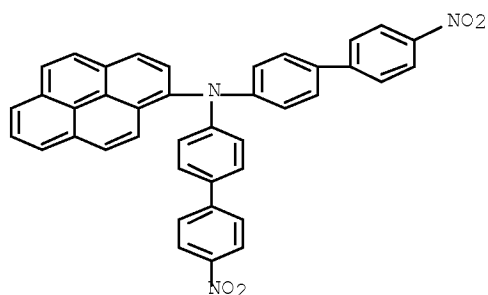
PAGE 2-A



IT 169195-03-3P 169195-04-4P
 RL: RCT (Reactant); SPN (Synthetic preparation); PREP
 (Preparation); RACT (Reactant or reagent)
 (preparation of pyrene derivs. as electroluminescent materials)
 RN 169195-03-3 HCAPLUS
 CN [1,1'-Biphenyl]-4,4'-diamine, N-(4'-amino[1,1'-biphenyl]-4-yl)-N-1-pyrenyl- (9CI) (CA INDEX NAME)



RN 169195-04-4 HCAPLUS
 CN 1-Pyrenamine, N,N-bis(4'-nitro[1,1'-biphenyl]-4-yl)- (CA INDEX NAME)

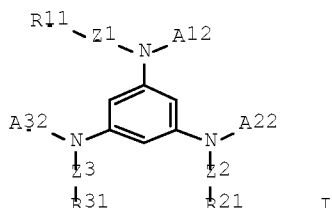


IC ICM C07C211-61
 ICS C07C209-10; C07C209-36; C07C217-92; C07C255-58; C09K011-06
 ICA C07B061-00
 CC 25-28 (Benzene, Its Derivatives, and Condensed Benzenoid Compounds)
 Section cross-reference(s): 73, 74
 IT 169195-00-0P 169195-01-1P 169195-02-2P
 RL: DEV (Device component use); SPN (Synthetic preparation); PREP (Preparation); USES (Uses)
 (preparation of pyrene derivs. as electroluminescent materials)
 IT 169195-03-3P 169195-04-4P
 RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
 (preparation of pyrene derivs. as electroluminescent materials)

L64 ANSWER 36 OF 38 HCAPLUS COPYRIGHT 2008 ACS on STN
 ACCESSION NUMBER: 1995:489867 HCAPLUS Full-text
 DOCUMENT NUMBER: 122:277531
 ORIGINAL REFERENCE NO.: 122:50397a,50400a
 TITLE: Trisarylamino benzene derivatives, compounds for organic electroluminescent element, and organic electroluminescent element.
 INVENTOR(S): Shiota, Yasuhiko; Nakaya, Kenji; Okada, Norihiro; Namba, Kenryo
 PATENT ASSIGNEE(S): Japan
 SOURCE: Eur. Pat. Appl., 22 pp.
 CODEN: EPXXDW
 DOCUMENT TYPE: Patent
 LANGUAGE: English
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

10549801-265764-EIC 1700 SEARCH

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 611148	A1	19940817	EP 1994-300954	1994 0209
EP 611148	B1	19980603	<--	
R: DE, FR, GB				
JP 07097355	A	19950411	JP 1994-36605	1994 0209
JP 3419534	B2	20030623	<--	
US 5508136	A	19960416	US 1994-194145	1994 0210
PRIORITY APPLN. INFO.:			JP 1993-45785	A 1993 0210
			JP 1993-140041	A 1993 0519
OTHER SOURCE(S):		MARPAT 122:277531		
ED Entered STN:		15 Apr 1995		
GI				

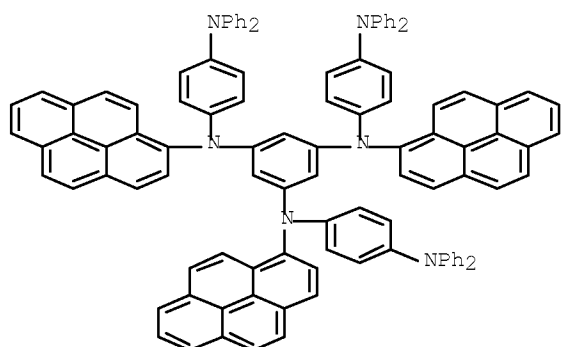


AB Novel trisarylamino benzene derivs. are represented by the formula I [Z1, Z2, and Z3 = divalent aromatic ring residues, R11, R21, and R31 = groups represented by -NZ1Z2, -NHZ1, -NR1Z1, -Z1, -OZ1 or -SZ1 wherein each of Z1 and Z2 = a monovalent aromatic ring residue, and R1 is an alkyl group, ≥1 of R11, R21, and R31 being a group represented by -NZ1Z2, -NHZ1 or -NR1Z1, and A12, A22, and A32 = aromatic residues, alkyl groups or H]. An organic electroluminescent element which uses the compound in an organic compound layer, especially in a hole injection transport layer provides uniform plane light emission and is durable enough to maintain luminance.

IT 162879-30-3
RL: MOA (Modifier or additive use); USES (Uses)
(electroluminescent element component)

RN 162879-30-3 HCAPLUS

CN 1,3,5-Benzenetriamine, N,N',N''-tris[4-(diphenylamino)phenyl]-
N,N',N''-tri-1-pyrenyl- (9CI) (CA INDEX NAME)



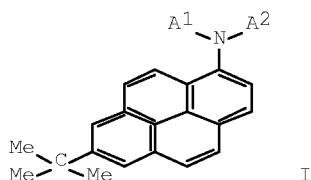
IC ICM C07C211-54
ICS H05B033-14; H01B001-12
CC 73-5 (Optical, Electron, and Mass Spectroscopy and Other
Related Properties)
Section cross-reference(s): 25
IT 153521-91-6 162879-22-3 162879-23-4 162879-24-5
162879-25-6 162879-26-7 162879-27-8 162879-28-9
162879-29-0 162879-30-3 162879-31-4 162879-32-5
162879-33-6 162879-34-7 162879-35-8 162879-36-9
162879-37-0 162879-38-1
RL: MOA (Modifier or additive use); USES (Uses)
(electroluminescent element component)

L64 ANSWER 37 OF 38 HCAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 1994:90368 HCAPLUS Full-text
DOCUMENT NUMBER: 120:90368
ORIGINAL REFERENCE NO.: 120:15917a,15920a
TITLE: Organic electroluminescent device
INVENTOR(S): Onuma, Teruyuki; Shimada, Tomoyuki; Ota,
Masabumi; Sakon, Hirota; Takahashi, Toshihiko;
Yamaguchi, Takehito
PATENT ASSIGNEE(S): Ricoh Co., Ltd., Japan
SOURCE: Jpn. Kokai Tokkyo Koho, 7 pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 05021161	A	19930129	JP 1991-190953	1991 0705

PRIORITY APPLN. INFO.: JP 1991-190953
1991
0705

ED Entered STN: 19 Feb 1994
GI



AB The device comprises ≥ 1 layer containing a pyrene derivative I [A1,2 = (substituted) alkyl, (substituted) aryl] as an electron- or hole-transporting layer. The device is suited for use in a long-life low-threshold large-area display device.

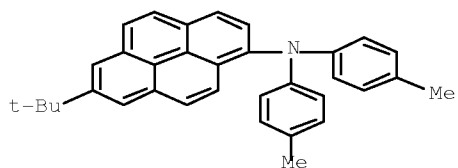
IT 143877-69-4 143877-76-3

RL: USES (Uses)

(charge carrier transporter, in electroluminescent devices)

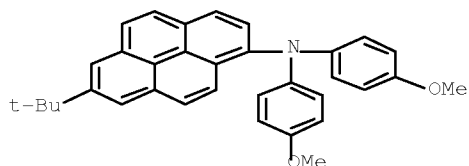
RN 143877-69-4 HCAPLUS

CN 1-Pyrenamine, 7-(1,1-dimethylethyl)-N,N-bis(4-methylphenyl)- (CA INDEX NAME)



RN 143877-76-3 HCAPLUS

CN 1-Pyrenamine, 7-(1,1-dimethylethyl)-N,N-bis(4-methoxyphenyl)- (CA INDEX NAME)



IC ICM H05B033-14

ICS C09K011-00; C09K011-06; G09F009-30

CC 73-10 (Optical, Electron, and Mass Spectroscopy and Other Related Properties)

IT 143877-69-4 143877-76-3

RL: USES (Uses)

(charge carrier transporter, in electroluminescent devices)

L64 ANSWER 38 OF 38 HCAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 1993:549178 HCAPLUS [Full-text](#)

DOCUMENT NUMBER: 119:149178

ORIGINAL REFERENCE NO.: 119:26495a,26498a

TITLE: Electroluminescent elements

INVENTOR(S): Onuma, Teruyuki; Shimada, Tomoyuki; Ota, Masabumi; Kawamura, Fumio; Sakon, Hirota; Takahashi, Toshihiko

PATENT ASSIGNEE(S): Ricoh Co., Ltd., Japan

10549801-265764-EIC 1700 SEARCH

SOURCE: Jpn. Kokai Tokkyo Koho, 9 pp.
 CODEN: JKXXAF
 DOCUMENT TYPE: Patent
 LANGUAGE: Japanese
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 04175395	A	19920623	JP 1990-305405	1990 1110
US 5153073	A	19921006	US 1991-723375	1991 0628
PRIORITY APPLN. INFO.:				
			JP 1990-179355	A1 1990 0706
			JP 1990-305405	A 1990 1110

OTHER SOURCE(S): MARPAT 119:149178

ED Entered STN: 02 Oct 1993

AB The element, suited for use in large-area displays, comprises a cathode and an anode sandwiching ≥ 1 organic phosphor layer containing $A_3(NA_1A_2)_n$ [$A_{1,2}$ = (substituted) alkyl, (substituted) aryl; A_3 = (substituted) vinyl; $n = 1, 2$]. The element has a long-life stability with a low threshold voltage.

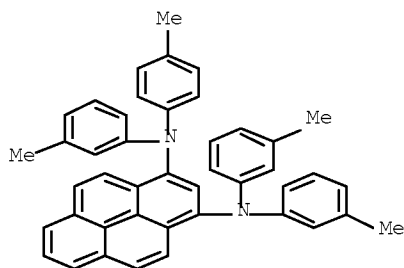
IT 146762-79-0

RL: PRP (Properties)

(electroluminescent phosphors from, blue emitting)

RN 146762-79-0 HCAPLUS

CN 1,3-Pyrenediamine, N1,N3,N3-tris(3-methylphenyl)-N1-(4-methylphenyl)- (9CI) (CA INDEX NAME)



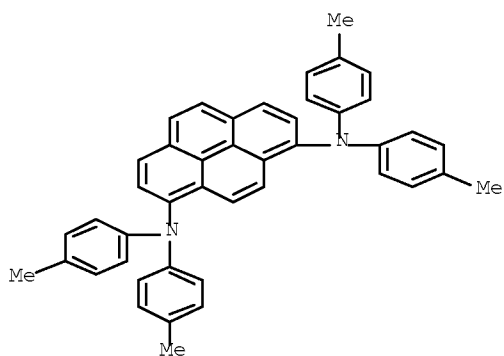
IT 142827-48-3

RL: PRP (Properties)

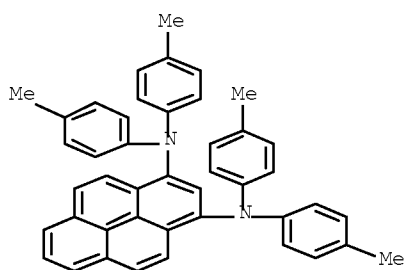
(electroluminescent phosphors from, green emitting)

RN 142827-48-3 HCAPLUS

CN 1,8-Pyrenediamine, N,N,N',N'-tetrakis(4-methylphenyl)- (9CI) (CA INDEX NAME)



IT 142641-61-0
 RL: PRP (Properties)
 (electroluminescent phosphors from, greenish blue emitting)
 RN 142641-61-0 HCAPLUS
 CN 1,3-Pyrenediimine, N,N,N',N'-tetrakis(4-methylphenyl)- (9CI) (CA
 INDEX NAME)



IC ICM C09K011-00
 ICS C09K011-06; H05B033-14
 CC 73-5 (Optical, Electron, and Mass Spectroscopy and Other
 Related Properties)
 Section cross-reference(s): 74
 IT 131625-67-7 139905-81-0 146762-79-0
 RL: PRP (Properties)
 (electroluminescent phosphors from, blue emitting)
 IT 139905-74-1 142827-48-3
 RL: PRP (Properties)
 (electroluminescent phosphors from, green emitting)
 IT 142641-61-0
 RL: PRP (Properties)
 (electroluminescent phosphors from, greenish blue emitting)

STRUCTURE SEARCH

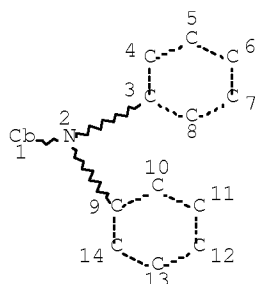
=> d his 167

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L67 43 S L66 NOT L64
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 SAV TEMP L67 GAR801HCPE/A

=> d que stat 167

L3 (18405)SEA FILE=REGISTRY ABB=ON PLU=ON 3593.5/RID
 L4 STR



NODE ATTRIBUTES:

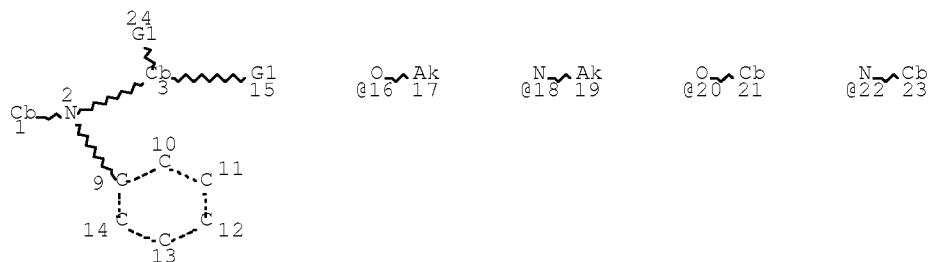
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 DEFAULT ECLEVEL IS LIMITED
 ECOUNT IS E16 C AT 1

GRAPH ATTRIBUTES:

RING(S) ARE ISOLATED OR EMBEDDED
 NUMBER OF NODES IS 14

STEREO ATTRIBUTES: NONE

L5 782 SEA FILE=REGISTRY SUB=L3 SSS FUL L4
 L21 STR



VAR G1=AK/CB/16/18/20/22/CN/X

NODE ATTRIBUTES:

DEFAULT MLEVEL IS ATOM
 GGCAT IS PCY UNS AT 1
 GGCAT IS UNS AT 3
 DEFAULT ECLEVEL IS LIMITED
 ECOUNT IS E16 C AT 1
 ECOUNT IS E6 C AT 3

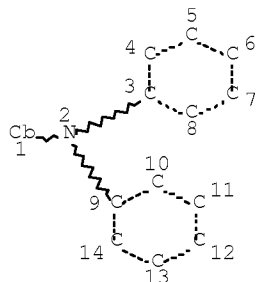
GRAPH ATTRIBUTES:

RING(S) ARE ISOLATED OR EMBEDDED
 NUMBER OF NODES IS 19

10549801-265764-EIC 1700 SEARCH

STEREO ATTRIBUTES: NONE

L23 57 SEA FILE=REGISTRY SUB=L5 SSS FUL L21
 L25 (18405)SEA FILE=REGISTRY ABB=ON PLU=ON 3593.5/RID
 L26 STR



NODE ATTRIBUTES:

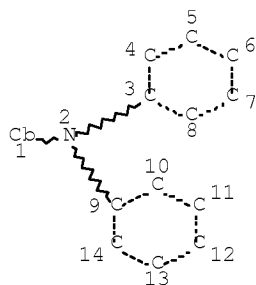
DEFAULT MLEVEL IS ATOM
 GGCAT IS PCY UNS AT 1
 DEFAULT ECLEVEL IS LIMITED
 ECOUNT IS E16 C AT 1

GRAPH ATTRIBUTES:

RING(S) ARE ISOLATED OR EMBEDDED
 NUMBER OF NODES IS 14

STEREO ATTRIBUTES: NONE

L27 (782)SEA FILE=REGISTRY SUB=L25 SSS FUL L26
 L28 (359)SEA FILE=HCAPLUS ABB=ON PLU=ON L27
 L29 (1474106)SEA FILE=HCAPLUS ABB=ON PLU=ON 73/SC,SX
 L30 (127)SEA FILE=HCAPLUS ABB=ON PLU=ON L28 AND L29
 L31 QUE ABB=ON PLU=ON PY<2004 OR PRY<2004 OR AY<2004 OR MY<2004 OR REVIEW/DT
 L32 81 SEA FILE=HCAPLUS ABB=ON PLU=ON L30 AND L31
 L33 (18405)SEA FILE=REGISTRY ABB=ON PLU=ON 3593.5/RID
 L34 STR



NODE ATTRIBUTES:

DEFAULT MLEVEL IS ATOM
 GGCAT IS PCY UNS AT 1
 DEFAULT ECLEVEL IS LIMITED
 ECOUNT IS E16 C AT 1

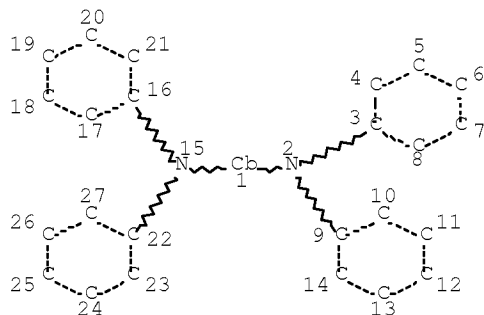
GRAPH ATTRIBUTES:

RING(S) ARE ISOLATED OR EMBEDDED
 NUMBER OF NODES IS 14

STEREO ATTRIBUTES: NONE

10549801-265764-EIC 1700 SEARCH

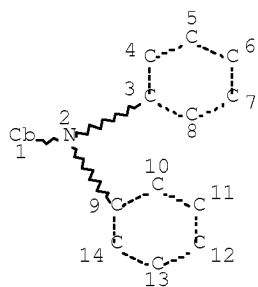
L35 (782)SEA FILE=REGISTRY SUB=L33 SSS FUL L34
 L36 (1474106)SEA FILE=HCAPLUS ABB=ON PLU=ON 73/SC,SX
 L37 QUE ABB=ON PLU=ON PY<2004 OR PRY<2004 OR AY<2004 OR
 MY<2004 OR REVIEW/DT
 L38 STR



NODE ATTRIBUTES:
 DEFAULT MLEVEL IS ATOM
 GGCAT IS PCY UNS AT 1
 DEFAULT ECLEVEL IS LIMITED
 ECOUNT IS E16 C AT 1

GRAPH ATTRIBUTES:
 RING(S) ARE ISOLATED OR EMBEDDED
 NUMBER OF NODES IS 27

STEREO ATTRIBUTES: NONE
 L39 (199)SEA FILE=REGISTRY SUB=L35 SSS FUL L38
 L40 (71)SEA FILE=HCAPLUS ABB=ON PLU=ON L39
 L41 (47)SEA FILE=HCAPLUS ABB=ON PLU=ON L40 AND L37
 L42 18 SEA FILE=HCAPLUS ABB=ON PLU=ON L41 AND L36
 L43 (18405)SEA FILE=REGISTRY ABB=ON PLU=ON 3593.5/RID
 L44 STR



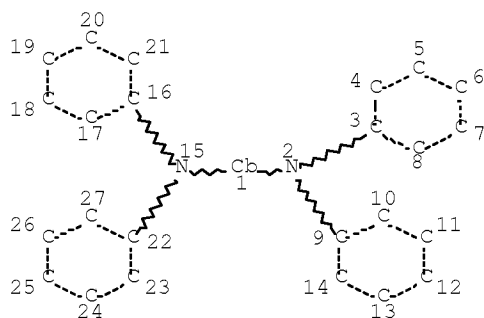
NODE ATTRIBUTES:
 DEFAULT MLEVEL IS ATOM
 GGCAT IS PCY UNS AT 1
 DEFAULT ECLEVEL IS LIMITED
 ECOUNT IS E16 C AT 1

GRAPH ATTRIBUTES:
 RING(S) ARE ISOLATED OR EMBEDDED
 NUMBER OF NODES IS 14

STEREO ATTRIBUTES: NONE
 L45 (782)SEA FILE=REGISTRY SUB=L43 SSS FUL L44
 L46 (1474106)SEA FILE=HCAPLUS ABB=ON PLU=ON 73/SC,SX

10549801-265764-EIC 1700 SEARCH

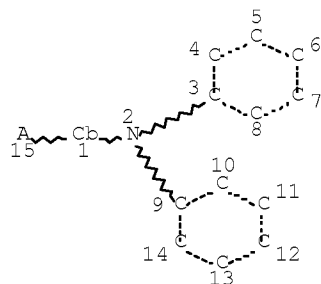
L47 QUE ABB=ON PLU=ON PY<2004 OR PRY<2004 OR AY<2004 OR
MY<2004 OR REVIEW/DT
L48 STR



NODE ATTRIBUTES:
DEFAULT MLEVEL IS ATOM
GGCAT IS PCY UNS AT 1
DEFAULT ECLEVEL IS LIMITED
ECOUNT IS E16 C AT 1

GRAPH ATTRIBUTES:
RING(S) ARE ISOLATED OR EMBEDDED
NUMBER OF NODES IS 27

STEREO ATTRIBUTES: NONE
L49 (199)SEA FILE=REGISTRY SUB=L45 SSS FUL L48
L50 STR



NODE ATTRIBUTES:
NSPEC IS RC AT 15
DEFAULT MLEVEL IS ATOM
GGCAT IS PCY UNS AT 1
DEFAULT ECLEVEL IS LIMITED
ECOUNT IS E16 C AT 1

GRAPH ATTRIBUTES:
RING(S) ARE ISOLATED OR EMBEDDED
NUMBER OF NODES IS 15

STEREO ATTRIBUTES: NONE
L51 (257)SEA FILE=REGISTRY SUB=L45 SSS FUL L50
L52 (58)SEA FILE=REGISTRY ABB=ON PLU=ON L51 NOT L49
L53 (31)SEA FILE=HCAPLUS ABB=ON PLU=ON L52
L54 (30)SEA FILE=HCAPLUS ABB=ON PLU=ON L53 AND L47
L55 4 SEA FILE=HCAPLUS ABB=ON PLU=ON L54 AND L46
L56 118 SEA FILE=HCAPLUS ABB=ON PLU=ON L5/P
L57 80 SEA FILE=HCAPLUS ABB=ON PLU=ON L56 AND L31

10549801-265764-EIC 1700 SEARCH

L58	1474466	SEA FILE=HCAPLUS	ABB=ON	PLU=ON	73/SC, SX
L59	19	SEA FILE=HCAPLUS	ABB=ON	PLU=ON	L58 AND L57
L60	33	SEA FILE=HCAPLUS	ABB=ON	PLU=ON	L42 OR L55 OR L59
L61	37	SEA FILE=HCAPLUS	ABB=ON	PLU=ON	L23
L62	31	SEA FILE=HCAPLUS	ABB=ON	PLU=ON	L61 AND L47
L63	8	SEA FILE=HCAPLUS	ABB=ON	PLU=ON	L62 AND L58
L64	38	SEA FILE=HCAPLUS	ABB=ON	PLU=ON	L60 OR L63
L65	593618	SEA FILE=HCAPLUS	ABB=ON	PLU=ON	"ELECTROLUMINESCENT DEVICES"+MAX/CT
L66	79	SEA FILE=HCAPLUS	ABB=ON	PLU=ON	L32 AND L65
L67	43	SEA FILE=HCAPLUS	ABB=ON	PLU=ON	L66 NOT L64

STRUCTURE SEARCH RESULTS (FHITSTR)

=> d 167 1-43 ibib ed fhitstr

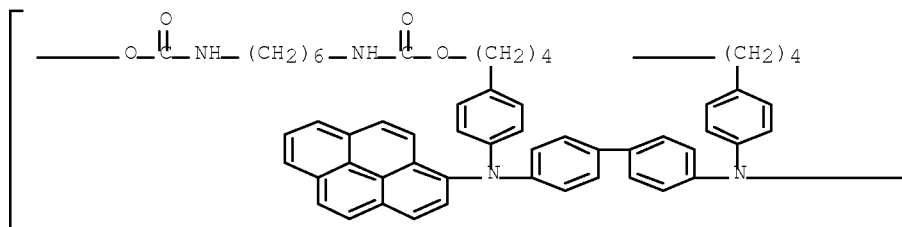
L67 ANSWER 1 OF 43 HCAPLUS COPYRIGHT 2008 ACS on STN
 ACCESSION NUMBER: 2005:522848 HCAPLUS Full-text
 DOCUMENT NUMBER: 143:50517
 TITLE: Organic electroluminescent device
 INVENTOR(S): Hirose, Eiichi; Seki, Mieko; Okuda, Daisuke;
 Ozaki, Tadayoshi; Agata, Takeshi; Ishii, Toru;
 Mashimo, Kiyokazu; Moriyama, Hiroaki; Sato,
 Katsuhiko; Nishino, Yohei
 PATENT ASSIGNEE(S): Fuji Xerox Co., Ltd., Japan
 SOURCE: Jpn. Kokai Tokkyo Koho, 142 pp.
 CODEN: JKXXAF
 DOCUMENT TYPE: Patent
 LANGUAGE: Japanese
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

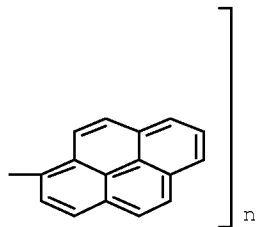
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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JP 2005158561	A	20050616	JP 2003-396947	2003 1127

PRIORITY APPLN. INFO.: <--
 JP 2003-396947
 2003
 1127
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ED Entered STN: 17 Jun 2005
 IT 853362-89-7
 RL: DEV (Device component use); USES (Uses)
 (organic electroluminescent device)
 RN 853362-89-7 HCAPLUS
 CN Poly[oxycarbonylimino-1,6-hexanediyliminocarbonyloxy-1,4-
 butanediyl-1,4-phenylene(1-pyrenylimino)[1,1'-biphenyl]-4,4'-
 diyl(1-pyrenylimino)-1,4-phenylene-1,4-butanediyl] (9CI) (CA
 INDEX NAME)

PAGE 1-A

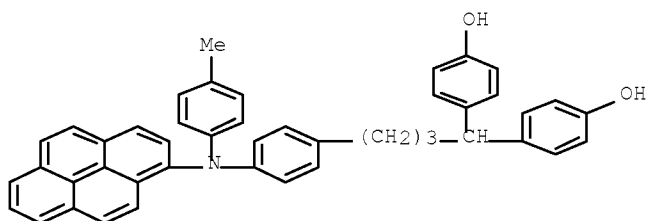




L67 ANSWER 2 OF 43 HCAPLUS COPYRIGHT 2008 ACS on STN
 ACCESSION NUMBER: 2004:530563 HCAPLUS Full-text
 DOCUMENT NUMBER: 141:96310
 TITLE: Organic semiconductor laser with polycarbonate resin
 INVENTOR(S): Okada, Takashi; Sasaki, Masaomi; Torii, Masafumi; Kawamura, Shinichi; Kosaka, Toshiya
 PATENT ASSIGNEE(S): Ricoh Co., Ltd., Japan
 SOURCE: Jpn. Kokai Tokkyo Koho, 49 pp.
 CODEN: JKXXAF
 DOCUMENT TYPE: Patent
 LANGUAGE: Japanese
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2004186599	A	20040702	JP 2002-354321	2002 1205
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PRIORITY APPLN. INFO.:				JP 2002-354321
				2002 1205
				<--

ED Entered STN: 02 Jul 2004
 IT 201361-79-7
 RL: DEV (Device component use); USES (Uses)
 (organic semiconductor laser with polycarbonate resin)
 RN 201361-79-7 HCAPLUS
 CN Carbonic acid, polymer with 1,6-hexanediol and
 4,4'-[4-[4-[(4-methylphenyl)-1-pyrenylamino]phenyl]butylidene]bis[
 phenol] (9CI) (CA INDEX NAME)
 CM 1
 CRN 189503-60-4
 CMF C45 H37 N O2



10549801-265764-EIC 1700 SEARCH

CM 2

CRN 629-11-8
CMF C6 H14 O2



CM 3

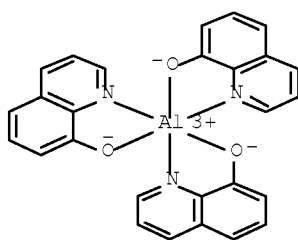
CRN 463-79-6
CMF C H2 O3



L67 ANSWER 3 OF 43 HCAPLUS COPYRIGHT 2008 ACS on STN
 ACCESSION NUMBER: 2004:291722 HCAPLUS Full-text
 DOCUMENT NUMBER: 140:329315
 TITLE: Organic electroluminescent device
 INVENTOR(S): Hirose, Eiichi; Okuda, Daisuke; Seki, Mieko;
 Ozaki, Tadayoshi; Yoneyama, Hiroto; Ishii,
 Toru; Agata, Takeshi; Mashimo, Kiyokazu; Sato,
 Katsuhiko
 PATENT ASSIGNEE(S): Fuji Xerox Co., Ltd., Japan
 SOURCE: Jpn. Kokai Tokkyo Koho, 140 pp.
 CODEN: JKXXAF
 DOCUMENT TYPE: Patent
 LANGUAGE: Japanese
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2004111206	A	20040408	JP 2002-271831	2002 0918
US 20040081854	A1	20040429	US 2003-389947	2003 0318
PRIORITY APPLN. INFO.:				2002 0918

ED Entered STN: 09 Apr 2004
 IT 2085-33-8, Alq3
 RL: DEV (Device component use); USES (Uses)
 (organic electroluminescent device)
 RN 2085-33-8 HCAPLUS
 CN Aluminum, tris(8-quinolinolato-κN1,κO8)- (CA INDEX
 NAME)



L67 ANSWER 4 OF 43 HCAPLUS COPYRIGHT 2008 ACS on STN
 ACCESSION NUMBER: 2004:203906 HCAPLUS Full-text
 DOCUMENT NUMBER: 140:261172
 TITLE: Organic light-emitting devices
 INVENTOR(S): Saito, Akihito; Hiraoka, Mizuho; Suzuki, Koichi; Senoo, Akihiro; Tanabe, Hiroshi; Yamada, Naoki; Negishi, Chika
 PATENT ASSIGNEE(S): Canon Kabushiki Kaisha, Japan
 SOURCE: PCT Int. Appl., 84 pp.
 CODEN: PIXXD2
 DOCUMENT TYPE: Patent
 LANGUAGE: English
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2004020548	A1	20040311	WO 2003-JP10782	2003 0826

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W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW

RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG

JP 2004087363	A	20040318	JP 2002-248354	2002 0828
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AU 2003256084	A1	20040319	AU 2003-256084	2003 0826
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US 20060068221	A1	20060330	US 2005-525198	2005 0222
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PRIORITY APPLN. INFO.:	JP 2002-248354	A	2002 0828
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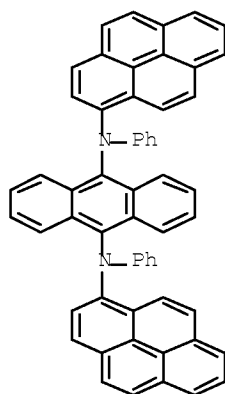
10549801-265764-EIC 1700 SEARCH

WO 2003-JP10782 W

2003
0826

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OTHER SOURCE(S): MARPAT 140:261172
ED Entered STN: 14 Mar 2004
IT 189263-91-0
RL: DEV (Device component use); MOA (Modifier or additive use);
USES (Uses)
(organic light-emitting devices using hosts doped with Ph
group-containing diamine derivs.)
RN 189263-91-0 HCAPLUS
CN 9,10-Anthracenediamine, N9,N10-diphenyl-N9,N10-di-1-pyrenyl- (CA
INDEX NAME)



REFERENCE COUNT: 17 THERE ARE 17 CITED REFERENCES AVAILABLE
FOR THIS RECORD. ALL CITATIONS AVAILABLE
IN THE RE FORMAT

L67 ANSWER 5 OF 43 HCAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 2004:203783 HCAPLUS Full-text
DOCUMENT NUMBER: 140:261171
TITLE: Condensed polycyclic compounds and organic
light-emitting device using the same
INVENTOR(S): Suzuki, Koichi; Kawai, Tatsundo; Senoo,
Akihiro; Yamada, Naoki; Saito, Akihito;
Okajima, Maki
PATENT ASSIGNEE(S): Canon Kabushiki Kaisha, Japan
SOURCE: PCT Int. Appl., 77 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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WO 2004020371	A1	20040311	WO 2003-JP10783	2003 0826

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W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA,
CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI,
GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, KE, KG, KP,
KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN,

10549801-265764-EIC 1700 SEARCH

MW, MX, MZ, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC,
 SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG,
 US, UZ, VC, VN, YU, ZA, ZM, ZW
 RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM,
 AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ,
 DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL,
 PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN,
 GQ, GW, ML, MR, NE, SN, TD, TG

JP 2004107326 A 20040408 JP 2003-291191 2003
 0811
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 AU 2003256085 A1 20040319 AU 2003-256085 2003
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 US 20050236974 A1 20051027 US 2005-522947 2005
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 US 7338721 B2 20080304
 PRIORITY APPLN. INFO.: JP 2002-246600 A 2002
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 JP 2003-291191 A 2003
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 WO 2003-JP10783 W 2003
 0826
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OTHER SOURCE(S): MARPAT 140:261171

ED Entered STN: 14 Mar 2004

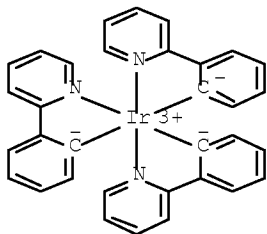
IT 94928-86-6

RL: DEV (Device component use); MOA (Modifier or additive use);
 USES (Uses)

(preparation of condensed polycyclic compds. and their use to the
 manufacture of organic light-emitting devices)

RN 94928-86-6 HCAPLUS

CN Iridium, tris[2-(2-pyridinyl-κN)phenyl-κC]-,
 (OC-6-22)- (CA INDEX NAME)



REFERENCE COUNT: 5 THERE ARE 5 CITED REFERENCES AVAILABLE
 FOR THIS RECORD. ALL CITATIONS AVAILABLE
 IN THE RE FORMAT

L67 ANSWER 6 OF 43 HCAPLUS COPYRIGHT 2008 ACS on STN
 ACCESSION NUMBER: 2003:777744 HCAPLUS Full-text
 DOCUMENT NUMBER: 139:299013

10549801-265764-EIC 1700 SEARCH

TITLE: Oligofluorenylene compounds
 INVENTOR(S): Saitoh, Akihito; Hiraoka, Mizuho; Suzuki, Koichi; Senoo, Akihiro; Tanabe, Hiroshi; Yamada, Naoki; Negishi, Chika; Kasahara, Maki
 PATENT ASSIGNEE(S): Canon Kabushiki Kaisha, Japan
 SOURCE: PCT Int. Appl., 62 pp.
 CODEN: PIXXD2
 DOCUMENT TYPE: Patent
 LANGUAGE: English
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2003080559	A1	20031002	WO 2003-JP3615	2003 0325
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
JP 2004002298	A	20040108	JP 2003-6796	2003 0115
JP 3848262	B2	20061122		
AU 2003221098	A1	20031008	AU 2003-221098	2003 0325
EP 1487779	A1	20041222	EP 2003-712917	2003 0325
CN 1568303	A	20050119	CN 2003-801298	2003 0325
US 20050106414	A1	20050519	US 2004-506300	2004 0901
US 7229702	B2	20070612		
PRIORITY APPLN. INFO.: JP 2002-88918 A 2002 0327 JP 2003-6796 A 2003 0115 WO 2003-JP3615 W 2003 0325				

10549801-265764-EIC 1700 SEARCH

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OTHER SOURCE(S): MARPAT 139:299013
 ED Entered STN: 03 Oct 2003
 IT 12798-95-7
 RL: DEV (Device component use); USES (Uses)
 (electrode; oligofluorenylene compds. for organic light-emitting
 devices)
 RN 12798-95-7 HCAPLUS
 CN Aluminum alloy, nonbase, Al,Li (CA INDEX NAME)

Component	Component Registry Number
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Al	7429-90-5
Li	7439-93-2

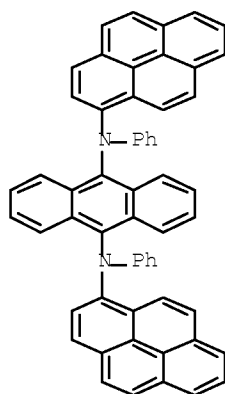
REFERENCE COUNT: 6 THERE ARE 6 CITED REFERENCES AVAILABLE
 FOR THIS RECORD. ALL CITATIONS AVAILABLE
 IN THE RE FORMAT

L67 ANSWER 7 OF 43 HCAPLUS COPYRIGHT 2008 ACS on STN
 ACCESSION NUMBER: 2003:628443 HCAPLUS Full-text
 DOCUMENT NUMBER: 139:171119
 TITLE: Organic electroluminescent device comprising
 coupled anthracene fluorene derivative and
 with amino-substituted hydrocarbon
 INVENTOR(S): Totani, Yoshiyuki; Ishida, Tsutomu; Shimamura,
 Takehiko; Tanabe, Yoshimitsu; Nakatsuka,
 Masakatsu
 PATENT ASSIGNEE(S): Mitsui Chemicals Inc., Japan
 SOURCE: Jpn. Kokai Tokkyo Koho, 122 pp.
 CODEN: JKXXAF
 DOCUMENT TYPE: Patent
 LANGUAGE: Japanese
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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JP 2003229273	A	20030815	JP 2002-25736	2002 0201
JP 4080213	B2	20080423		
PRIORITY APPLN. INFO.:			JP 2002-25736	2002 0201

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OTHER SOURCE(S): MARPAT 139:171119
 ED Entered STN: 15 Aug 2003
 IT 189263-91-0
 RL: DEV (Device component use); USES (Uses)
 (organic electroluminescent device comprising coupled anthracene
 fluorene derivative and with amino-substituted hydrocarbon)
 RN 189263-91-0 HCAPLUS
 CN 9,10-Anthracenediamine, N9,N10-diphenyl-N9,N10-di-1-pyrenyl- (CA
 INDEX NAME)



L67 ANSWER 8 OF 43 HCAPLUS COPYRIGHT 2008 ACS on STN
 ACCESSION NUMBER: 2003:568966 HCAPLUS Full-text
 DOCUMENT NUMBER: 139:124838
 TITLE: Electroluminescent component and frequency
 conversion method using polycarbonate
 INVENTOR(S): Kosaka, Toshiya; Sasaki, Masaomi; Torii,
 Masafumi; Kawamura, Shinichi; Okada, Takashi;
 Ariga, Tamotsu
 PATENT ASSIGNEE(S): Ricoh Co., Ltd., Japan
 SOURCE: Jpn. Kokai Tokkyo Koho, 15 pp.
 CODEN: JKXXAF
 DOCUMENT TYPE: Patent
 LANGUAGE: Japanese
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2003208985	A	20030725	JP 2002-5391	2002 0111

PRIORITY APPLN. INFO.: JP 2001-344987 A 2001
 1109

ED Entered STN: 25 Jul 2003

IT 201361-79-7

RL: DEV (Device component use); USES (Uses)
 (electroluminescent component and frequency conversion method
 using polycarbonate)

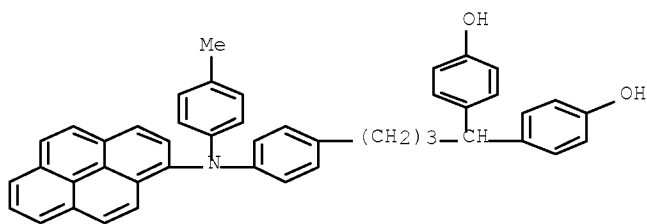
RN 201361-79-7 HCAPLUS

CN Carbonic acid, polymer with 1,6-hexanediol and
 4,4'-[4-[4-[(4-methylphenyl)-1-pyrenylamino]phenyl]butylidene]bis[
 phenol] (9CI) (CA INDEX NAME)

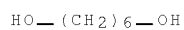
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CRN 189503-60-4

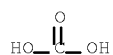
CMF C45 H37 N O2



CM 2

CRN 629-11-8
CMF C6 H14 O2

CM 3

CRN 463-79-6
CMF C H2 O3

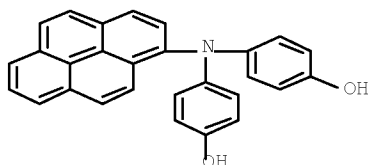
L67 ANSWER 9 OF 43 HCAPLUS COPYRIGHT 2008 ACS on STN
 ACCESSION NUMBER: 2003:550672 HCAPLUS Full-text
 DOCUMENT NUMBER: 139:124811
 TITLE: Electroluminescent device and frequency
 conversion method using polycarbonate compound
 INVENTOR(S): Sasaki, Masaomi; Torii, Masafumi; Kawamura,
 Shinichi; Okada, Takashi; Kosaka, Toshiya;
 Ariga, Tamotsu
 PATENT ASSIGNEE(S): Ricoh Co., Ltd., Japan
 SOURCE: Jpn. Kokai Tokkyo Koho, 15 pp.
 CODEN: JKXXAF
 DOCUMENT TYPE: Patent
 LANGUAGE: Japanese
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2003203777	A	20030718	JP 2001-402043	2001 1228

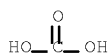
PRIORITY APPLN. INFO.: JP 2001-402043
 2001
 1228

10549801-265764-EIC 1700 SEARCH

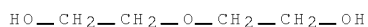
ED Entered STN: 18 Jul 2003
 IT 561323-20-4
 RL: DEV (Device component use); USES (Uses)
 (electroluminescent device and frequency conversion method
 using polycarbonate compound)
 RN 561323-20-4 HCAPLUS
 CN Carbonic acid, polymer with 2,2'-oxybis[ethanol] and
 4,4'-(1-pyrenylimino)bis[phenol] (9CI) (CA INDEX NAME)
 CM 1
 CRN 167100-14-3
 CMF C28 H19 N O2



CM 2
 CRN 463-79-6
 CMF C H2 O3



CM 3
 CRN 111-46-6
 CMF C4 H10 O3



L67 ANSWER 10 OF 43 HCAPLUS COPYRIGHT 2008 ACS on STN
 ACCESSION NUMBER: 2003:17570 HCAPLUS [Full-text](#)
 DOCUMENT NUMBER: 138:98157
 TITLE: Electrophotographic printer using source for
 light with specified wavelength for
 photoconductor
 INVENTOR(S): Niimi, Tatsuya
 PATENT ASSIGNEE(S): Ricoh Co., Ltd., Japan
 SOURCE: Jpn. Kokai Tokkyo Koho, 65 pp.
 CODEN: JKXXAF
 DOCUMENT TYPE: Patent
 LANGUAGE: Japanese
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

10549801-265764-EIC 1700 SEARCH

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2003005402	A	20030108	JP 2002-70984	2002 0314
JP 3883456	B2	20070221	<--	
PRIORITY APPLN. INFO.:			JP 2001-73834	A 2001 0315
			<--	

OTHER SOURCE(S): MARPAT 138:98157

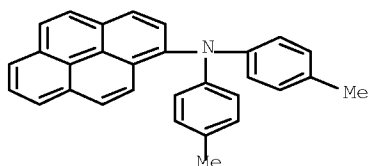
ED Entered STN: 09 Jan 2003

IT 131625-67-7

RL: MOA (Modifier or additive use); USES (Uses)
(electrophotog. printer having semiconductive light source and
photoconductor having protective layer containing)

RN 131625-67-7 HCAPLUS

CN 1-Pyrenamine, N,N-bis(4-methylphenyl)- (CA INDEX NAME)



L67 ANSWER 11 OF 43 HCAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 2002:848332 HCAPLUS Full-text

DOCUMENT NUMBER: 137:343669

TITLE: Organic electroluminescent devices

INVENTOR(S): Kato, Hiroshi

PATENT ASSIGNEE(S): Ricoh Co., Ltd., Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 10 pp.
CODEN: JKXXAF

DOCUMENT TYPE: Patent

LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2002324664	A	20021108	JP 2001-131017	2001 0427
			<--	
PRIORITY APPLN. INFO.:			JP 2001-131017	2001 0427
			<--	

ED Entered STN: 08 Nov 2002

IT 50926-11-9, ITO

RL: DEV (Device component use); USES (Uses)
(organic electroluminescent devices)

RN 50926-11-9 HCAPLUS

CN Indium tin oxide (CA INDEX NAME)

Component	Ratio	Component

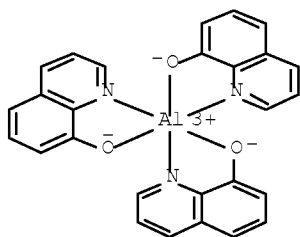
10549801-265764-EIC 1700 SEARCH

		Registry Number
=====	=====	=====
O	x	17778-80-2
In	x	7440-74-6
Sn	x	7440-31-5

L67 ANSWER 12 OF 43 HCAPLUS COPYRIGHT 2008 ACS on STN
 ACCESSION NUMBER: 2002:611919 HCAPLUS Full-text
 DOCUMENT NUMBER: 137:161189
 TITLE: Organic electroluminescence devices
 INVENTOR(S): Suzuki, Mutsumi; Fukuyama, Masao
 PATENT ASSIGNEE(S): Matsushita Electric Industrial Co., Ltd.,
 Japan
 SOURCE: Jpn. Kokai Tokkyo Koho, 5 pp.
 CODEN: JKXXAF
 DOCUMENT TYPE: Patent
 LANGUAGE: Japanese
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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JP 2002231457	A	20020816	JP 2001-26415	2001 0202
			<--	
JP 3690286	B2	20050831		
PRIORITY APPLN. INFO.:			JP 2001-26415	2001 0202
			<--	

ED Entered STN: 16 Aug 2002
 IT ~~2085-33-8~~, Tris(8-quinolinolato)aluminum
 RL: DEV (Device component use); USES (Uses)
 (organic electroluminescence devices)
 RN 2085-33-8 HCAPLUS
 CN Aluminum, tris(8-quinolinolato-κN1,κO8)- (CA INDEX
 NAME)



L67 ANSWER 13 OF 43 HCAPLUS COPYRIGHT 2008 ACS on STN
 ACCESSION NUMBER: 2002:479989 HCAPLUS Full-text
 DOCUMENT NUMBER: 137:70352
 TITLE: Polyamino fluorene derivative for
 electroluminescent material
 INVENTOR(S): Miki, Tetsuzo; Kimura, Toshihide; Nakanishi,
 Naoko; Komatsu, Shihoko; Kusano, Shigeru
 PATENT ASSIGNEE(S): Hodogaya Chemical Co., Ltd., Japan
 SOURCE: Jpn. Kokai Tokkyo Koho, 16 pp.

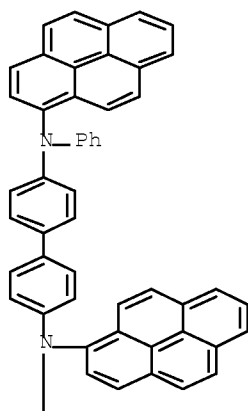
10549801-265764-EIC 1700 SEARCH

DOCUMENT TYPE: CODEN: JKXXAF
LANGUAGE: Patent
FAMILY ACC. NUM. COUNT: 1 Japanese
PATENT INFORMATION:

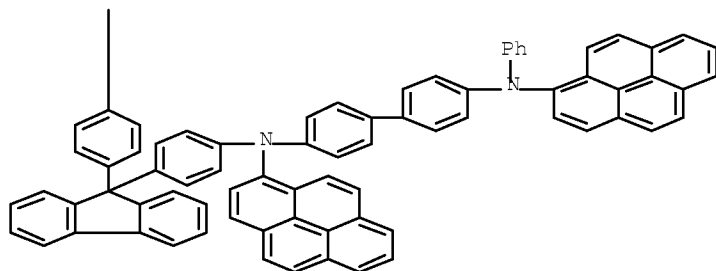
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2002179630	A	20020626	JP 2001-301076	2001 0928
				<--
PRIORITY APPLN. INFO.:			JP 2000-296908	A 2000 0928
				<--

OTHER SOURCE(S): MARPAT 137:70352
ED Entered STN: 26 Jun 2002
IT 439133-37-6
RL: DEV (Device component use); USES (Uses)
(polyamino-fluorene derivative for electroluminescent material)
RN 439133-37-6 HCAPLUS
CN [1,1'-Biphenyl]-4,4'-diamine, N,N'-(9H-fluoren-9-ylidenedi-4,1-phenylene)bis[N'-phenyl-N,N'-di-1-pyrenyl- (9CI) (CA INDEX NAME)]

PAGE 1-A

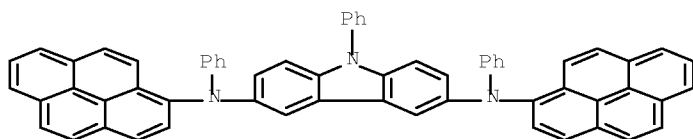


PAGE 2-A



10549801-265764-EIC 1700 SEARCH

L67 ANSWER 14 OF 43 HCAPLUS COPYRIGHT 2008 ACS on STN
 ACCESSION NUMBER: 2002:299600 HCAPLUS Full-text
 DOCUMENT NUMBER: 137:93475
 TITLE: Light-emitting carbazole derivatives for electroluminescent materials
 AUTHOR(S): Lin, Jiann T'suen; Thomas, K. R. Justin; Tao, Yu-Tai; Ko, Chung-Wen
 CORPORATE SOURCE: Institute of Chemistry, Academia Sinica, Taipei, 115, Taiwan
 SOURCE: Proceedings of SPIE-The International Society for Optical Engineering (2002), 4464(Organic Light-Emitting Materials and Devices V), 307-316
 CODEN: PSISDG; ISSN: 0277-786X
 PUBLISHER: SPIE-The International Society for Optical Engineering
 DOCUMENT TYPE: Journal
 LANGUAGE: English
 ED Entered STN: 22 Apr 2002
 IT 340162-05-2
 RL: DEV (Device component use); PRP (Properties); USES (Uses)
 (light-emitting carbazole derivs. for electroluminescent materials)
 RN 340162-05-2 HCAPLUS
 CN 9H-Carbazole-3,6-diamine, N3,N6,9-triphenyl-N3,N6-di-1-pyrenyl-
 (CA INDEX NAME)

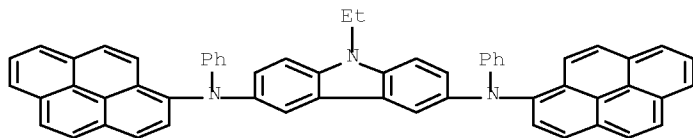


REFERENCE COUNT: 35 THERE ARE 35 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L67 ANSWER 15 OF 43 HCAPLUS COPYRIGHT 2008 ACS on STN
 ACCESSION NUMBER: 2001:889365 HCAPLUS Full-text
 DOCUMENT NUMBER: 136:125727
 TITLE: Light-Emitting Diodes Based on a Carbazole-Derivatized Dopant: Origin of Dopant Excitation as a Function of the Device Structure
 AUTHOR(S): Ko, Chung-Wen; Tao, Yu-Tai; Lin, Jiann T.; Thomas, K. R. Justin
 CORPORATE SOURCE: Institute of Chemistry, Academia Sinica, Taipei, 115, Peop. Rep. China
 SOURCE: Chemistry of Materials (2002), 14(1), 357-361
 CODEN: CMATEX; ISSN: 0897-4756
 PUBLISHER: American Chemical Society
 DOCUMENT TYPE: Journal
 LANGUAGE: English
 ED Entered STN: 10 Dec 2001
 IT 373390-02-4
 RL: DEV (Device component use); MOA (Modifier or additive use); PEP (Physical, engineering or chemical process); PRP (Properties); PYP (Physical process); PROC (Process); USES (Uses)
 (dopant; origin of dopant excitation as function structure of light-emitting diodes based on carbazole-derivatized dopant)

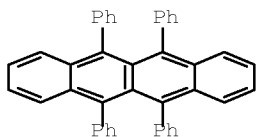
10549801-265764-EIC 1700 SEARCH

RN 373390-02-4 HCAPLUS
 CN 9H-Carbazole-3,6-diamine, 9-ethyl-N3,N6-diphenyl-N3,N6-di-1-pyrenyl- (CA INDEX NAME)



REFERENCE COUNT: 16 THERE ARE 16 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L67 ANSWER 16 OF 43 HCAPLUS COPYRIGHT 2008 ACS on STN
 ACCESSION NUMBER: 2000:377669 HCAPLUS Full-text
 DOCUMENT NUMBER: 133:65435
 TITLE: Blue-emitting organic EL devices with a hole blocking layer
 AUTHOR(S): Sato, Y.; Ichinosawa, S.; Ogata, T.; Fugono, M.; Murata, Y.
 CORPORATE SOURCE: Mitsubishi Chemical 1000, Yokohama Research Center, Yokohama, Japan
 SOURCE: Synthetic Metals (2000), 111-112, 25-29
 CODEN: SYMEDZ; ISSN: 0379-6779
 PUBLISHER: Elsevier Science S.A.
 DOCUMENT TYPE: Journal
 LANGUAGE: English
 ED Entered STN: 07 Jun 2000
 IT 517-51-1, Rubrene
 RL: DEV (Device component use); MOA (Modifier or additive use);
 USES (Uses)
 (blue-emitting organic electroluminescent devices with hole blocking layer doped with)
 RN 517-51-1 HCAPLUS
 CN Naphthacene, 5,6,11,12-tetraphenyl- (CA INDEX NAME)



REFERENCE COUNT: 13 THERE ARE 13 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

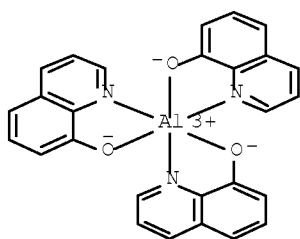
L67 ANSWER 17 OF 43 HCAPLUS COPYRIGHT 2008 ACS on STN
 ACCESSION NUMBER: 1999:670067 HCAPLUS Full-text
 DOCUMENT NUMBER: 131:294207
 TITLE: Hole-transporting material and use thereof
 INVENTOR(S): Tamano, Michiko; Okutsu, Satoshi; Enokida, Toshio
 PATENT ASSIGNEE(S): Toyo Ink Manufacturing Co., Ltd., Japan
 SOURCE: U.S., 22 pp., Cont.-in-part of U.S. Ser. No. 762,921, abandoned.

10549801-265764-EIC 1700 SEARCH

DOCUMENT TYPE: CODEN: USXXAM
 LANGUAGE: Patent
 FAMILY ACC. NUM. COUNT: English
 2
 PATENT INFORMATION:

PATENT NO. -----	KIND ----	DATE -----	APPLICATION NO. -----	DATE
US 5968675	A	19991019	US 1998-85251	1998 0528
JP 09222741	A	19970826	JP 1996-306049	1996 1118
PRIORITY APPLN. INFO.:			JP 1995-321345	1995 1211
			JP 1996-306049	1996 1118
			US 1996-762921	1996 1210

OTHER SOURCE(S): MARPAT 131:294207
 ED Entered STN: 21 Oct 1999
 IT 2085-33-8, Tris(8-hydroxyquinoline)aluminum
 RL: DEV (Device component use); USES (Uses)
 (hole-transporting materials based on triarylamine derivs. and
 their use in electroluminescent devices and electrophotog.
 photoreceptors)
 RN 2085-33-8 HCAPLUS
 CN Aluminum, tris(8-quinolinolato-κN1,κO8)- (CA INDEX
 NAME)



REFERENCE COUNT: 8 THERE ARE 8 CITED REFERENCES AVAILABLE
 FOR THIS RECORD. ALL CITATIONS AVAILABLE
 IN THE RE FORMAT

L67 ANSWER 18 OF 43 HCAPLUS COPYRIGHT 2008 ACS on STN
 ACCESSION NUMBER: 1999:163164 HCAPLUS Full-text
 DOCUMENT NUMBER: 130:244249
 TITLE: Organic thin film electroluminescent device
 containing aromatic polymcarbonate resin
 INVENTOR(S): Nagai, Kazukiyo; Adachi, Chihaya
 PATENT ASSIGNEE(S): Ricoh Co., Ltd., Japan

10549801-265764-EIC 1700 SEARCH

SOURCE: Jpn. Kokai Tokkyo Koho, 47 pp.
 CODEN: JKXXAF
 DOCUMENT TYPE: Patent
 LANGUAGE: Japanese
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 11067452	A	19990309	JP 1997-228919	1997 0811
JP 3578253	B2	20041020	<--	
PRIORITY APPLN. INFO.:			JP 1997-228919	1997 0811
			<--	

ED Entered STN: 12 Mar 1999

IT 221237-39-4

RL: DEV (Device component use); MOA (Modifier or additive use);
 USES (Uses)

(organic thin-film electroluminescent device containing aromatic polycarbonate)

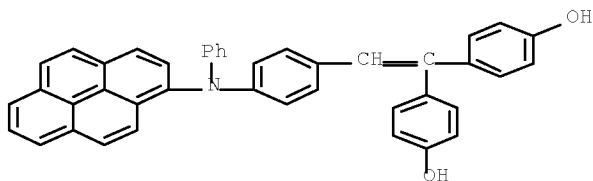
RN 221237-39-4 HCAPLUS

CN Methanol, trichloro-, carbonate (2:1), polymer with
 4,4'-(1-methylethylidene)bis[phenol] and 4,4'-[[4-(phenyl-1-pyrenylamino)phenyl]ethenylidene]bis[phenol] (9CI) (CA INDEX NAME)

CM 1

CRN 198769-63-0

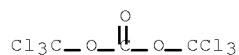
CMF C42 H29 N O2



CM 2

CRN 32315-10-9

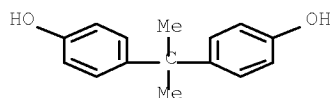
CMF C3 Cl6 O3



CM 3

CRN 80-05-7

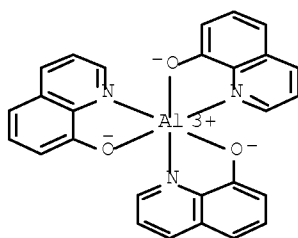
CMF C15 H16 O2



L67 ANSWER 19 OF 43 HCAPLUS COPYRIGHT 2008 ACS on STN
 ACCESSION NUMBER: 1999:111658 HCAPLUS Full-text
 DOCUMENT NUMBER: 130:202697
 TITLE: Organic electroluminescent device used as planar light source in optical displays
 INVENTOR(S): Okutsu, Akira; Tamano, Michiko; Onikubo, Shunichi; Enokida, Toshio
 PATENT ASSIGNEE(S): Toyo Ink Mfg. Co., Ltd., Japan
 SOURCE: Jpn. Kokai Tokkyo Koho, 27 pp.
 CODEN: JKXXAF
 DOCUMENT TYPE: Patent
 LANGUAGE: Japanese
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 11040359	A	19990212	JP 1997-195294	1997 0722
JP 3890686	B2	20070307	JP 1997-195294	1997 0722

OTHER SOURCE(S): MARPAT 130:202697
 ED Entered STN: 18 Feb 1999
 IT 2085-33-8, A1 8q
 RL: DEV (Device component use); USES (Uses)
 (organic electroluminescent device used as planar light source in optical displays)
 RN 2085-33-8 HCAPLUS
 CN Aluminum, tris(8-quinolinolato-κN1,κO8)- (CA INDEX NAME)



L67 ANSWER 20 OF 43 HCAPLUS COPYRIGHT 2008 ACS on STN

10549801-265764-EIC 1700 SEARCH

ACCESSION NUMBER: 1999:78780 HCAPLUS Full-text
DOCUMENT NUMBER: 130:175066
TITLE: Organic thin film electroluminescent device
containing polycarbonate resin
INVENTOR(S): Nagai, Kazukiyo; Katayama, Akira; Adachi,
Chihaya
PATENT ASSIGNEE(S): Ricoh Co., Ltd., Japan
SOURCE: Jpn. Kokai Tokkyo Koho, 17 pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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JP 11031584	A	19990202	JP 1997-193188	1997 0703
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PRIORITY APPLN. INFO.:			JP 1997-193188	1997 0703
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ED Entered STN: 05 Feb 1999

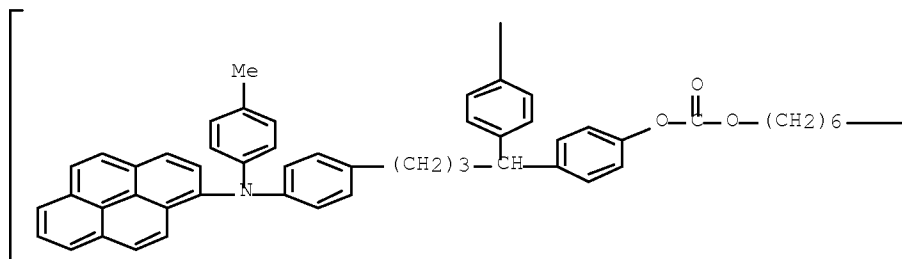
IT 189503-59-1

RL: DEV (Device component use); USES (Uses)
(organic thin film electroluminescent device containing aromatic
polycarbonate-based light-emitting layer)

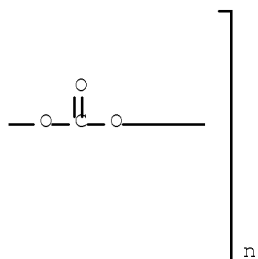
RN 189503-59-1 HCAPLUS

CN Poly[oxy carbonyloxy-1,6-hexanediyl oxy carbonyloxy-1,4-phenylene[4-
[4-[(4-methylphenyl)-1-pyrenylamino]phenyl]butylidene]-1,4-
phenylene] (9CI) (CA INDEX NAME)

PAGE 1-A



PAGE 1-B



10549801-265764-EIC 1700 SEARCH

L67 ANSWER 21 OF 43 HCAPLUS COPYRIGHT 2008 ACS on STN
 ACCESSION NUMBER: 1999:72212 HCAPLUS Full-text
 DOCUMENT NUMBER: 130:175062
 TITLE: Organic thin-film electroluminescent (EL)
 device containing heat-resistant aromatic
 polycarbonate
 INVENTOR(S): Nagai, Kazukiyo; Tamura, Hiroshi; Adachi,
 Chihaya
 PATENT ASSIGNEE(S): Ricoh Co., Ltd., Japan
 SOURCE: Jpn. Kokai Tokkyo Koho, 15 pp.
 CODEN: JKXXAF
 DOCUMENT TYPE: Patent
 LANGUAGE: Japanese
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 11026160	A	19990129	JP 1997-193183	1997 0703

PRIORITY APPLN. INFO.: <--
 JP 1997-193183
 1997
 0703
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ED Entered STN: 03 Feb 1999

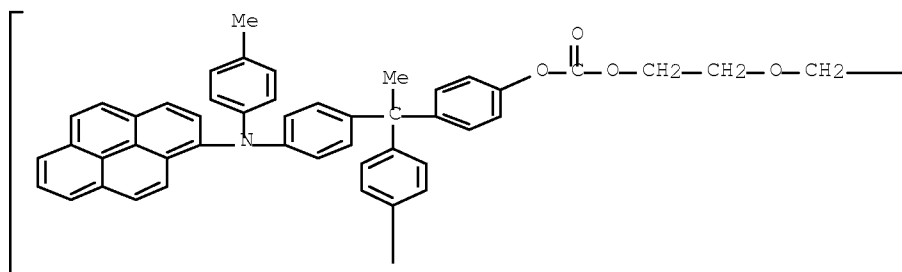
IT 184363-47-1

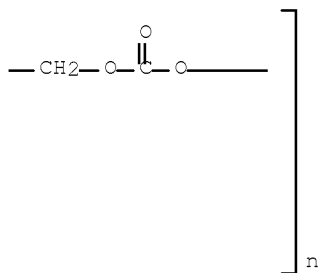
RL: DEV (Device component use); USES (Uses)
 (durable organic thin-film electroluminescent device containing
 triarylamine-type aromatic polycarbonate)

RN 184363-47-1 HCAPLUS

CN Poly[oxycarbonyloxy-1,2-ethanediyl-1,2-ethanediyl-oxycarbonyloxy-
 1,4-phenylene[1-[4-[(4-methylphenyl)-1-
 pyrenylamino]phenyl]ethylidene]-1,4-phenylene] (9CI) (CA INDEX
 NAME)

PAGE 1-A



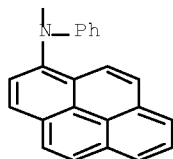
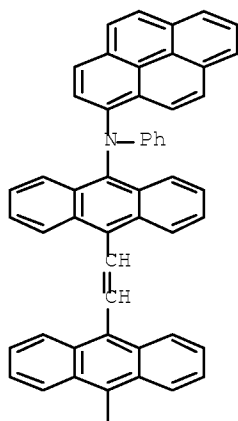


L67 ANSWER 22 OF 43 HCAPLUS COPYRIGHT 2008 ACS on STN
 ACCESSION NUMBER: 1999:35313 HCAPLUS Full-text
 DOCUMENT NUMBER: 130:145976
 TITLE: Organic electroluminescent material containing anthracene derivative
 INVENTOR(S): Okutsu, Satoshi; Tamano, Michiko; Onikubo, Shunichi; Enokida, Toshio
 PATENT ASSIGNEE(S): Toyo Ink Mfg. Co., Ltd., Japan
 SOURCE: Jpn. Kokai Tokkyo Koho, 36 pp.
 CODEN: JKXXAF
 DOCUMENT TYPE: Patent
 LANGUAGE: Japanese
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 11008068	A	19990112	JP 1997-161418	1997 0618
JP 3591226	B2	20041117	JP 1997-161418	1997 0618

PRIORITY APPLN. INFO.: <--

OTHER SOURCE(S): MARPAT 130:145976
 ED Entered STN: 19 Jan 1999
 IT 220072-02-6
 RL: DEV (Device component use); USES (Uses)
 (organic electroluminescent device containing anthracene derivative)
 RN 220072-02-6 HCAPLUS
 CN 1-Pyrenamine, N,N'-(1,2-ethenediyl-di-10,9-anthracenediyl)bis[N-phenyl- (9CI) (CA INDEX NAME)]



L67 ANSWER 23 OF 43 HCAPLUS COPYRIGHT 2008 ACS on STN
 ACCESSION NUMBER: 1998:180620 HCAPLUS Full-text
 DOCUMENT NUMBER: 128:276872
 ORIGINAL REFERENCE NO.: 128:54683a,54686a
 TITLE: Organic electroluminescent devices and
 N-aryl-substituted diaminoanthracene compounds
 for use in their manufacture
 INVENTOR(S): Enokida, Toshio; Tamano, Michiko; Okutsu,
 Satoshi
 PATENT ASSIGNEE(S): Toyo Ink Mfg. Co., Ltd., Japan
 SOURCE: Jpn. Kokai Tokkyo Koho, 38 pp.
 CODEN: JKXXAF
 DOCUMENT TYPE: Patent
 LANGUAGE: Japanese
 FAMILY ACC. NUM. COUNT: 4
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 10072581	A	19980317	JP 1996-244493	1996 0917
US 6251531	B1	20010626	US 1998-30791	1998 0226
PRIORITY APPLN. INFO.: JP 1995-245607 A				

10549801-265764-EIC 1700 SEARCH

1995
0925
<--
JP 1996-12430 A
1996
0129
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JP 1996-170809 A
1996
0701
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US 1996-688879 A3
1996
0731
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OTHER SOURCE(S): MARPAT 128:276872

ED Entered STN: 27 Mar 1998

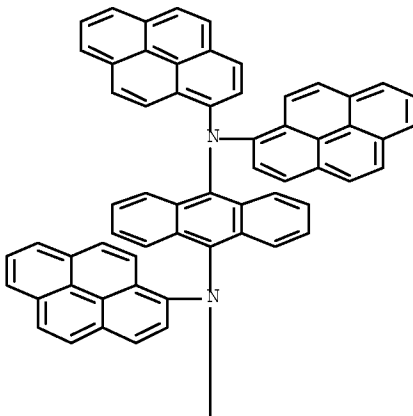
IT 189264-01-5

RL: DEV (Device component use); PRP (Properties); USES (Uses)
(light-emitting substances; organic electroluminescent devices and
N-aryl-substituted diaminoanthracene compds. for use in manufacture)

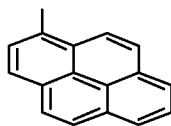
RN 189264-01-5 HCAPLUS

CN 9,10-Anthracenediamine, N9,N9,N10,N10-tetrabenzo[def]phenanthren-1-yl- (CA INDEX NAME)

PAGE 1-A



PAGE 2-A



L67 ANSWER 24 OF 43 HCAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 1998:180619 HCAPLUS Full-text

DOCUMENT NUMBER: 128:276871

ORIGINAL REFERENCE NO.: 128:54683a,54686a

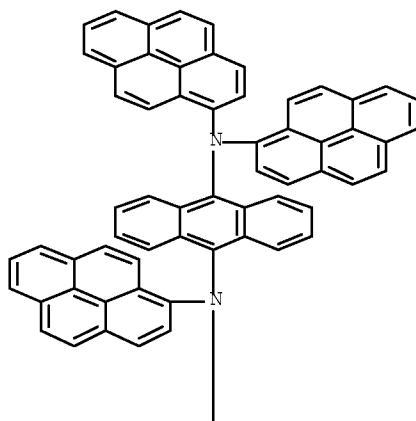
TITLE: Organic electroluminescent devices and

10549801-265764-EIC 1700 SEARCH

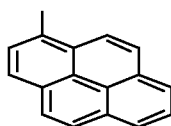
INVENTOR(S): N-aryl-substituted diaminoanthracene compounds
for use in their manufacture
Enokida, Toshio; Tamano, Michiko; Okutsu,
Satoshi
PATENT ASSIGNEE(S): Toyo Ink Mfg. Co., Ltd., Japan
SOURCE: Jpn. Kokai Tokkyo Koho, 36 pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 4
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 10072580	A	19980317	JP 1996-244492	1996 0917
JP 2924810	B2	19990726	<--	
US 6251531	B1	20010626	US 1998-30791	1998 0226
JP 11265788	A	19990928	JP 1999-7257	1999 0114
JP 3340687	B2	20021105	<--	
PRIORITY APPLN. INFO.:			JP 1995-245607	A 1995 0925
			<--	
			JP 1996-12430	A 1996 0129
			<--	
			JP 1996-170808	A 1996 0701
			<--	
			US 1996-688879	A3 1996 0731
			<--	
			JP 1996-244492	A3 1996 0917
			<--	
OTHER SOURCE(S):		MARPAT 128:276871		
ED	Entered STN:	27 Mar 1998		
IT	189264-01-5			
RL:	DEV (Device component use); PRP (Properties); USES (Uses)			
	(light-emitting substances; for manufacture of organic			
	electroluminescent devices with high brightness and long			
	service life)			
RN	189264-01-5 HCAPLUS			
CN	9,10-Anthracenediamine, N9,N9,N10,N10-tetrabenzo[def]phenanthren-1-			
	yl- (CA INDEX NAME)			

PAGE 1-A



PAGE 2-A



L67 ANSWER 25 OF 43 HCAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 1998:180618 HCAPLUS Full-text

DOCUMENT NUMBER: 128:276870

ORIGINAL REFERENCE NO.: 128:54683a,54686a

TITLE: Organic electroluminescent devices and
N-aryl-substituted diaminoanthracene compounds
for use in their manufacture

INVENTOR(S): Enokida, Toshio; Tamano, Michiko; Okutsu,
Satoshi

PATENT ASSIGNEE(S): Toyo Ink Mfg. Co., Ltd., Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 23 pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent

LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 4

PATENT INFORMATION:

PATENT NO. -----	KIND ----	DATE -----	APPLICATION NO. -----	DATE
JP 10072579	A	19980317	JP 1996-244491	1996 0917
			<--	
JP 2924809	B2	19990726		
US 6251531	B1	20010626	US 1998-30791	1998 0226
			<--	
PRIORITY APPLN. INFO.:			JP 1995-245607	A 1995

10549801-265764-EIC 1700 SEARCH

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 0129
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 JP 1996-170810 A
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 0701
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 US 1996-688879 A3
 1996
 0731
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OTHER SOURCE(S): MARPAT 128:276870

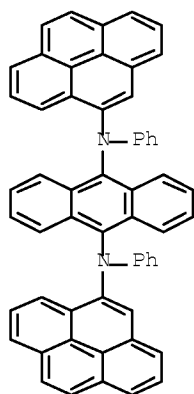
ED Entered STN: 27 Mar 1998

IT 205581-61-9

RL: DEV (Device component use); PRP (Properties); USES (Uses)
 (light-emitting substances; organic electroluminescent devices and
 N-aryl-substituted diaminoanthracene compds. for use in manufacture)

RN 205581-61-9 HCAPLUS

CN 9,10-Anthracenediamine, N9,N10-diphenyl-N9,N10-di-4-pyrenyl- (CA
 INDEX NAME)



L67 ANSWER 26 OF 43 HCAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 1997:784185 HCAPLUS Full-text

DOCUMENT NUMBER: 128:55233

ORIGINAL REFERENCE NO.: 128:10669h,10670a

TITLE: Charge-transporting aromatic diamines and
 organic electroluminescent elements

INVENTOR(S): Takei, Atsushi; Anzai, Akitoshi; Watanabe,
 Takanobu; Inaki, Chieko

PATENT ASSIGNEE(S): Hodogaya Chemical Co., Ltd., Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 26 pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent

LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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JP 09316038	A	19971209	JP 1996-159150	1996

10549801-265764-EIC 1700 SEARCH

0531

PRIORITY APPLN. INFO.: <--
JP 1996-159150

1996

0531

OTHER SOURCE(S): MARPAT 128:55233

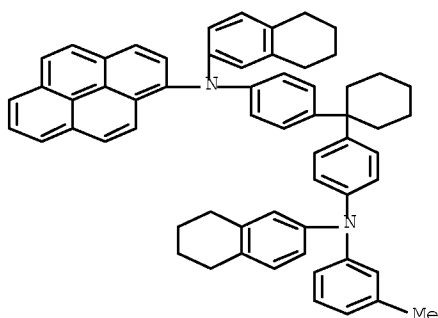
ED Entered STN: 15 Dec 1997

IT 180741-97-3

RL: DEV (Device component use); USES (Uses)
(charge-transporting aromatic diamines for stable
electroluminescent elements)

RN 180741-97-3 HCAPLUS

CN 1-Pyrenamine, N-[4-[1-[4-[(3-methylphenyl)(5,6,7,8-tetrahydro-2-naphthalenyl)amino]phenyl]cyclohexyl]phenyl]-N-(5,6,7,8-tetrahydro-2-naphthalenyl)- (CA INDEX NAME)



L67 ANSWER 27 OF 43 HCAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 1997:480901 HCAPLUS Full-text

DOCUMENT NUMBER: 127:115061

ORIGINAL REFERENCE NO.: 127:22069a,22072a

TITLE: Hole-transporting material and use thereof

INVENTOR(S): Tamano, Michiko; Okutsu, Satoshi; Enokida, Toshio

PATENT ASSIGNEE(S): Toyo Ink Manufacturing Co., Ltd., Japan

SOURCE: Eur. Pat. Appl., 32 pp.

CODEN: EPXXDW

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 2

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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EP 779765	A2	19970618	EP 1996-309019	1996 1211
			<--	
EP 779765	A3	19970730		
EP 779765	B1	20010801		
R: DE, FR, GB				
JP 09222741	A	19970826	JP 1996-306049	1996 1118

PRIORITY APPLN. INFO.: <--
JP 1995-321345

A

1995

10549801-265764-EIC 1700 SEARCH

1211

<--
JP 1996-306049 A

1996

1118

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OTHER SOURCE(S): MARPAT 127:115061

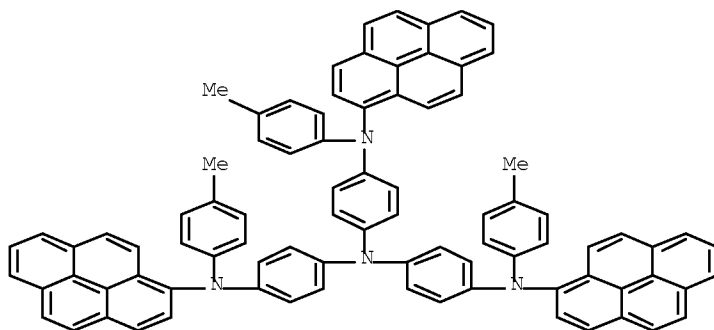
ED Entered STN: 02 Aug 1997

IT 192180-93-1

RL: DEV (Device component use); PRP (Properties); USES (Uses)
(aryl amine hole-transporting materials and apparatus using them)

RN 192180-93-1 HCAPLUS

CN 1,4-Benzenediamine, N1-benzo[def]phenanthren-1-yl-N4,N4-bis[4-
[benzo[def]phenanthren-1-yl(4-methylphenyl)amino]phenyl]-N1-(4-
methylphenyl)- (CA INDEX NAME)



L67 ANSWER 28 OF 43 HCAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 1997:334774 HCAPLUS Full-text

DOCUMENT NUMBER: 126:310317

ORIGINAL REFERENCE NO.: 126:60025a,60028a

TITLE: Light-emitting material for organic
electroluminescence device, and organic
electroluminescence device for which the
light-emitting material is adapted

INVENTOR(S): Enokida, Toshio; Tamano, Michiko; Okutsu,
Satoshi

PATENT ASSIGNEE(S): Toyo Ink Manufacturing Co., Ltd., Japan

SOURCE: Eur. Pat. Appl., 46 pp.

CODEN: EPXXDW

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 4

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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EP 765106	A2	19970326	EP 1996-305586	
				1996 0730
			<--	
EP 765106	A3	19970813		
EP 765106	B1	20021127		
R: DE, FR, GB				
EP 1146034	A1	20011017	EP 2001-113795	
				1996 0730

<--

A 19980602 US 1996-688879

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B1 19990615 KR 1996-42007

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B1 20010626 US 1998-30791

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JP 1995-245607 A

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JP 1996-12430 A

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EP 1996-305586 A3

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US 1996-688879 A3

1996
0731

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OTHER SOURCE(S) : MARPAT 126:310317

ED Entered STN: 26 May 1997

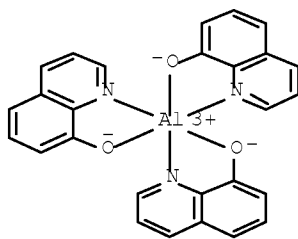
IT 2085-33-8

RL: DEV (Device component use); USES (Uses)

(anthracenediamine derivative-based light-emitting materials for organic electroluminescent devices and the devices)

RN 2085-33-8 HCAPLUS

CN Aluminum, tris(8-quinolinolato-κN1,κO8)- (CA INDEX
NAME)



L67 ANSWER 29 OF 43 HCAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 1996:523543 HCAPLUS Full-text

DOCUMENT NUMBER: 125:154084

ORIGINAL REFERENCE NO.: 125:28607a,28610a

TITLE: Organic thin-film electroluminescent (EL)
devices with high durability

INVENTOR(S) : Adachi, Chihaya; Nagai, Kazukyo; Tamoto,
Nozomi

PATENT ASSIGNEE(S): Ricoh Kk, Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 14 pp.

10549801-265764-EIC 1700 SEARCH

DOCUMENT TYPE: CODEN: JKXXAF
 LANGUAGE: Patent
 FAMILY ACC. NUM. COUNT: Japanese
 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 08138868	A	19960531	JP 1995-239239	1995 0824
US 5709959	A	19980120	US 1995-529580	1995 0918
PRIORITY APPLN. INFO.:				1994 0916

ED Entered STN: 30 Aug 1996
 IT 50926-11-9, ITO
 RL: DEV (Device component use); USES (Uses)
 (anode, with controlled ionization potential; organic thin-film EL
 devices with high durability)
 RN 50926-11-9 HCAPLUS
 CN Indium tin oxide (CA INDEX NAME)

Component	Ratio	Component Registry Number
O	x	17778-80-2
In	x	7440-74-6
Sn	x	7440-31-5

L67 ANSWER 30 OF 43 HCAPLUS COPYRIGHT 2008 ACS on STN
 ACCESSION NUMBER: 1995:954797 HCAPLUS Full-text
 DOCUMENT NUMBER: 123:354219
 ORIGINAL REFERENCE NO.: 123:63279a,63282a
 TITLE: Electroluminescence device
 INVENTOR(S): Tamoto, Nozomi; Shimada, Tomoyuki; Nagai,
 Kazukyo; Adachi, Chihaya; Sakon, Hirota
 PATENT ASSIGNEE(S): Ricoh Kk, Japan
 SOURCE: Jpn. Kokai Tokkyo Koho, 20 pp.
 CODEN: JKXXAF
 DOCUMENT TYPE: Patent
 LANGUAGE: Japanese
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

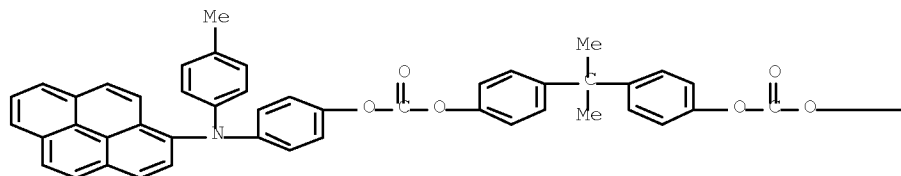
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 07242871	A	19950919	JP 1994-64509	1994 0308
PRIORITY APPLN. INFO.:				1994 0308

ED Entered STN: 01 Dec 1995
 IT 170930-38-8
 RL: DEV (Device component use); USES (Uses)
 (carbonate containing diamine for organic electroluminescence device)

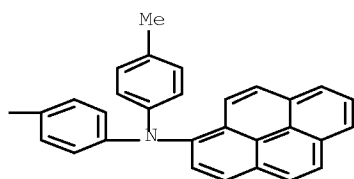
10549801-265764-EIC 1700 SEARCH

RN 170930-38-8 HCAPLUS
 CN Carbonic acid, (1-methylethylidene)di-4,1-phenylene
 bis[4-[(4-methylphenyl)-1-pyrenylamino]phenyl] ester (9CI) (CA
 INDEX NAME)

PAGE 1-A



PAGE 1-B



L67 ANSWER 31 OF 43 HCAPLUS COPYRIGHT 2008 ACS on STN
 ACCESSION NUMBER: 1995:767930 HCAPLUS Full-text
 DOCUMENT NUMBER: 123:183055
 ORIGINAL REFERENCE NO.: 123:32305a,32308a
 TITLE: Field-effect electroluminescent device
 containing aminopyrene derivative
 INVENTOR(S): Tamoto, Nozomi; Nagai, Kazukyo; Adachi,
 Chihaya; Sakon, Hirota
 PATENT ASSIGNEE(S): Ricoh Kk, Japan
 SOURCE: Jpn. Kokai Tokkyo Koho, 14 pp.
 CODEN: JKXXAF
 DOCUMENT TYPE: Patent
 LANGUAGE: Japanese
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
-----	----	-----	-----	
JP 07157754	A	19950620	JP 1993-338934	1993 1202
			<--	
PRIORITY APPLN. INFO.:			JP 1993-338934	A 1993 1202
			<--	
			JP 1993-280541	1993 1014
			<--	

OTHER SOURCE(S): MARPAT 123:183055
 ED Entered STN: 31 Aug 1995
 IT 167274-15-9
 RL: DEV (Device component use); USES (Uses)

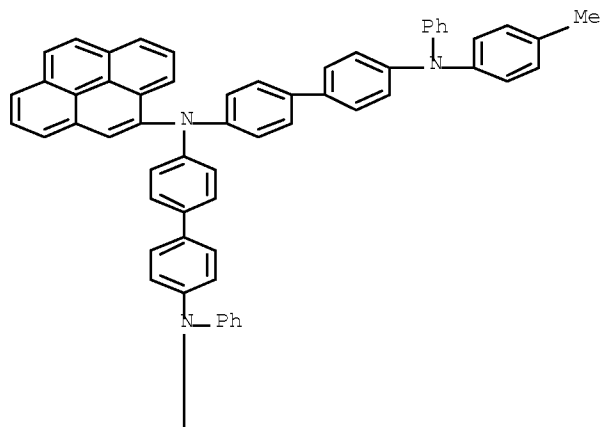
10549801-265764-EIC 1700 SEARCH

(field-effect electroluminescent device containing aminopyrene derivative with stable luminescence)

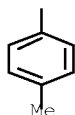
RN 167274-15-9 HCAPLUS

CN [1,1'-Biphenyl]-4,4'-diamine, N-(4-methylphenyl)-N'-[4'-[(4-methylphenyl)phenylamino][1,1'-biphenyl]-4-yl]-N-phenyl-N'-4-pyrenyl- (9CI) (CA INDEX NAME)

PAGE 1-A



PAGE 2-A



L67 ANSWER 32 OF 43 HCAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 1995:677558 HCAPLUS [Full-text](#)
DOCUMENT NUMBER: 123:156122
ORIGINAL REFERENCE NO.: 123:27555a,27558a
TITLE: Organic electroluminescent materials and devices using them
INVENTOR(S): Enokida, Toshio
PATENT ASSIGNEE(S): Toyo Ink Mfg Co, Japan
SOURCE: Jpn. Kokai Tokkyo Koho, 13 pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 07109449	A	19950425	JP 1993-258080	1993 1015
JP 3070356	B2	20000731	<--	

10549801-265764-EIC 1700 SEARCH

PRIORITY APPLN. INFO.:

JP 1993-258080

1993

1015

<--

OTHER SOURCE(S): MARPAT 123:156122

ED Entered STN: 15 Jul 1995

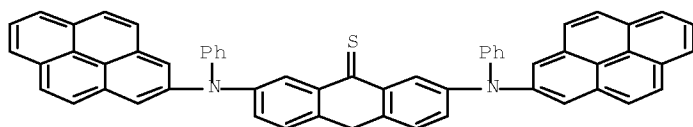
IT 166659-06-9

RL: DEV (Device component use); USES (Uses)

(fused ring organic electroluminescent materials and devices using them)

RN 166659-06-9 HCAPLUS

CN 9(10H)-Anthracenethione, 2,7-bis(phenyl-2-pyrenylamino)- (CA INDEX NAME)



L67 ANSWER 33 OF 43 HCAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 1995:663074 HCAPLUS Full-text

DOCUMENT NUMBER: 123:127048

ORIGINAL REFERENCE NO.: 123:22343a,22346a

TITLE: Electroluminescent element with oxadiazole derivative electron-transporting layer

INVENTOR(S): Nagai, Kazukyo; Adachi, Chihaya; Sakon, Hirota; Tamoto, Nozomi

PATENT ASSIGNEE(S): Ricoh Kk, Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 13 pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent

LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 07109454	A	19950425	JP 1993-280179	

1993

1012

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JP 3482446

B2

20031222

PRIORITY APPLN. INFO.:

JP 1993-280179

1993

1012

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OTHER SOURCE(S): MARPAT 123:127048

ED Entered STN: 11 Jul 1995

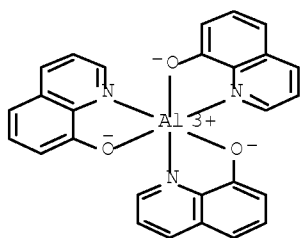
IT 2085-33-8, Tris(8-quinolinolato)aluminum

RL: DEV (Device component use); USES (Uses)

(electron-injection layer; electroluminescent devices containing oxadiazole derivative electron-transporting layers)

RN 2085-33-8 HCAPLUS

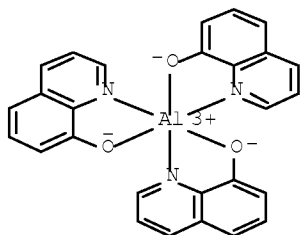
CN Aluminum, tris(8-quinolinolato-κN1,κO8)- (CA INDEX NAME)



L67 ANSWER 34 OF 43 HCAPLUS COPYRIGHT 2008 ACS on STN
 ACCESSION NUMBER: 1995:663073 HCAPLUS Full-text
 DOCUMENT NUMBER: 123:127047
 ORIGINAL REFERENCE NO.: 123:22343a,22346a
 TITLE: Electroluminescent element with oxadiazole
 derivative electron-transporting layer
 INVENTOR(S): Nagai, Kazukyo; Adachi, Chihaya; Sakon,
 Hirota; Tamoto, Nozomi
 PATENT ASSIGNEE(S): Ricoh Kk, Japan
 SOURCE: Jpn. Kokai Tokkyo Koho, 12 pp.
 CODEN: JKXXAF
 DOCUMENT TYPE: Patent
 LANGUAGE: Japanese
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO. -----	KIND ----	DATE -----	APPLICATION NO. -----	DATE
JP 07109453	A	19950425	JP 1993-280178	1993 1012
			<--	
JP 3368390	B2	20030120	JP 1993-280178	1993 1012
PRIORITY APPLN. INFO.:			<--	

OTHER SOURCE(S): MARPAT 123:127047
 ED Entered STN: 11 Jul 1995
 IT 2085-33-8
 RL: DEV (Device component use); USES (Uses)
 (electron-injection layer; electroluminescent devices containing
 oxadiazole derivative electron-transporting layers)
 RN 2085-33-8 HCAPLUS
 CN Aluminum, tris(8-quinolinolato-κN1,κO8)- (CA INDEX
 NAME)



L67 ANSWER 35 OF 43 HCAPLUS COPYRIGHT 2008 ACS on STN
 ACCESSION NUMBER: 1995:663072 HCAPLUS Full-text
 DOCUMENT NUMBER: 123:127046
 ORIGINAL REFERENCE NO.: 123:22343a,22346a
 TITLE: Electroluminescent element with oxadiazole
 derivative electron-transporting layer
 INVENTOR(S): Nagai, Kazukyo; Adachi, Chihaya; Sakon,
 Hirota; Tamoto, Nozomi
 PATENT ASSIGNEE(S): Ricoh Kk, Japan
 SOURCE: Jpn. Kokai Tokkyo Koho, 15 pp.
 CODEN: JKXXAF
 DOCUMENT TYPE: Patent
 LANGUAGE: Japanese
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

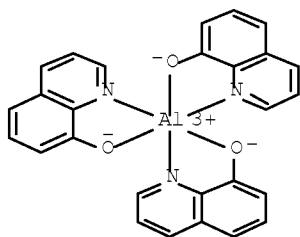
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 07109452	A	19950425	JP 1993-280092	

1993
1013

PRIORITY APPLN. INFO.: <--
 JP 1993-280092

1993
1013

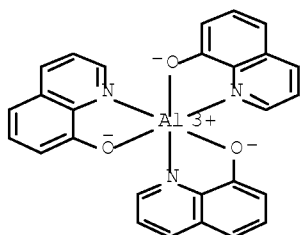
OTHER SOURCE(S): MARPAT 123:127046
 ED Entered STN: 11 Jul 1995
 IT 2085-33-8, Tris(8-quinolinolato)aluminum
 RL: DEV (Device component use); USES (Uses)
 (electron-injection layer; electroluminescent element containing
 oxadiazole derivative electron-transporting layer)
 RN 2085-33-8 HCAPLUS
 CN Aluminum, tris(8-quinolinolato-κN1,κO8)- (CA INDEX
 NAME)



L67 ANSWER 36 OF 43 HCAPLUS COPYRIGHT 2008 ACS on STN
 ACCESSION NUMBER: 1995:562195 HCAPLUS Full-text
 DOCUMENT NUMBER: 123:20922
 ORIGINAL REFERENCE NO.: 123:3811a,3814a
 TITLE: Molecular design of hole transport materials
 for obtaining high durability in organic
 electroluminescent diodes
 AUTHOR(S): Adachi, Chihaya; Nagai, Kazukiyo; Tamoto,
 Nozomu
 CORPORATE SOURCE: Chemical Products R and D Center, Ricoh Co.,

10549801-265764-EIC 1700 SEARCH

SOURCE: Ltd., Shizuoka, 410, Japan
 Applied Physics Letters (1995),
 66(20), 2679-81
 CODEN: APPLAB; ISSN: 0003-6951
 PUBLISHER: American Institute of Physics
 DOCUMENT TYPE: Journal
 LANGUAGE: English
 ED Entered STN: 20 May 1995
 IT 2085-33-8, Aluminum, tris(8-quinolinolato)-
 RL: DEV (Device component use); USES (Uses)
 (hole transport material for obtaining high durability in organic
 electroluminescent diodes)
 RN 2085-33-8 HCAPLUS
 CN Aluminum, tris(8-quinolinolato-κN1,κO8)- (CA INDEX
 NAME)



L67 ANSWER 37 OF 43 HCAPLUS COPYRIGHT 2008 ACS on STN
 ACCESSION NUMBER: 1995:275316 HCAPLUS Full-text
 DOCUMENT NUMBER: 122:302391
 ORIGINAL REFERENCE NO.: 122:54841a,54844a
 TITLE: Electroluminescent devices
 INVENTOR(S): Nagai, Kazukyo; Adachi, Chihaya; Sakon,
 Hirota; Oota, Masabumi
 PATENT ASSIGNEE(S): Ricoh Kk, Japan
 SOURCE: Jpn. Kokai Tokkyo Koho, 14 pp.
 CODEN: JKXXAF
 DOCUMENT TYPE: Patent
 LANGUAGE: Japanese
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 06248260	A	19940906	JP 1993-61049	1993 0225

PRIORITY APPLN. INFO.: JP 1993-61049
 1993
 0225

OTHER SOURCE(S): MARPAT 122:302391
 ED Entered STN: 05 Jan 1995
 IT 37271-44-6
 RL: DEV (Device component use); USES (Uses)
 (anode; electroluminescent devices containing thiazole derivs.)
 RN 37271-44-6 HCAPLUS
 CN Silver alloy, nonbase, Ag,Mg (CA INDEX NAME)

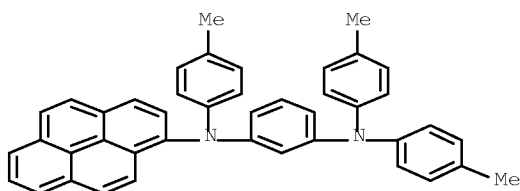
10549801-265764-EIC 1700 SEARCH

Component	Component Registry Number
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Ag	7440-22-4
Mg	7439-95-4

L67 ANSWER 38 OF 43 HCAPLUS COPYRIGHT 2008 ACS on STN
 ACCESSION NUMBER: 1995:207991 HCAPLUS Full-text
 DOCUMENT NUMBER: 122:20144
 ORIGINAL REFERENCE NO.: 122:3887a,3890a
 TITLE: Organic field-effect electroluminescent device
 containing amino compound
 INVENTOR(S): Nagai, Kazukyo; Adachi, Chihaya; Sakon,
 Hirota; Shimada, Tomoyuki; Oota, Masabumi
 PATENT ASSIGNEE(S): Ricoh Kk, Japan
 SOURCE: Jpn. Kokai Tokkyo Koho, 18 pp.
 CODEN: JKXXAF
 DOCUMENT TYPE: Patent
 LANGUAGE: Japanese
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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JP 06240248	A	19940830	JP 1993-52957	1993 0218
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PRIORITY APPLN. INFO.:			JP 1993-52957	1993 0218
			<--	

OTHER SOURCE(S): MARPAT 122:20144
 ED Entered STN: 23 Nov 1994
 IT 149111-88-6
 RL: DEV (Device component use); USES (Uses)
 (field-effect electroluminescent device containing amino compound
 with good durability)
 RN 149111-88-6 HCAPLUS
 CN 1,3-Benzenediamine, N,N,N'-tris(4-methylphenyl)-N-1-pyrenyl- (9CI)
 (CA INDEX NAME)



L67 ANSWER 39 OF 43 HCAPLUS COPYRIGHT 2008 ACS on STN
 ACCESSION NUMBER: 1995:207990 HCAPLUS Full-text
 DOCUMENT NUMBER: 122:20143
 ORIGINAL REFERENCE NO.: 122:3887a,3890a
 TITLE: Organic field-effect electroluminescent device
 containing pyrene derivative
 INVENTOR(S): Nagai, Kazukyo; Shimada, Tomoyuki; Sakon,
 Hirota; Adachi, Chihaya; Oota, Masabumi
 PATENT ASSIGNEE(S): Ricoh Kk, Japan

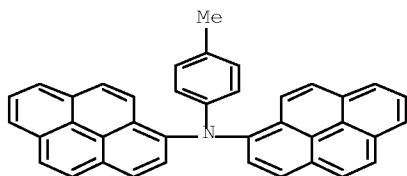
10549801-265764-EIC 1700 SEARCH

SOURCE: Jpn. Kokai Tokkyo Koho, 16 pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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JP 06240247	A	19940830	JP 1993-52955	1993 0218

PRIORITY APPLN. INFO.: <-- JP 1993-52955
1993
0218

OTHER SOURCE(S): MARPAT 122:20143
ED Entered STN: 23 Nov 1994
IT 145668-84-4
RL: DEV (Device component use); USES (Uses)
(field-effect electroluminescent device containing pyrene derivative
with good durability)
RN 145668-84-4 HCAPLUS
CN 1-Pyrenamine, N-(4-methylphenyl)-N-1-pyrenyl- (CA INDEX NAME)



L67 ANSWER 40 OF 43 HCAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 1994:641361 HCAPLUS Full-text
DOCUMENT NUMBER: 121:241361
ORIGINAL REFERENCE NO.: 121:43817a,43820a
TITLE: organic electroluminescent devices
INVENTOR(S): Nagai, Kazukyo; Oota, Masabumi; Sakon, Hirota;
Adachi, Chihaya; Takahashi, Toshihiko
PATENT ASSIGNEE(S): Ricoh Kk, Japan
SOURCE: Jpn. Kokai Tokkyo Koho, 10 pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 4
PATENT INFORMATION:

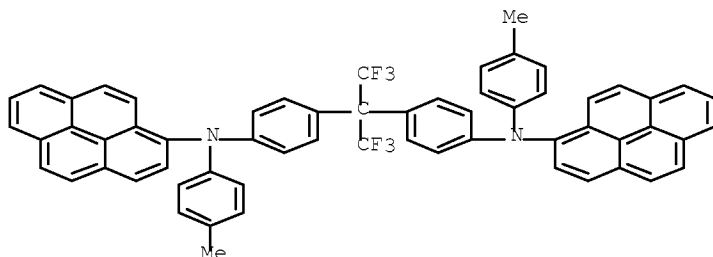
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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JP 06065569	A	19940308	JP 1993-104993	1993 0407

PRIORITY APPLN. INFO.: <-- JP 1992-186051 A1
1992
0620

OTHER SOURCE(S): MARPAT 121:241361

10549801-265764-EIC 1700 SEARCH

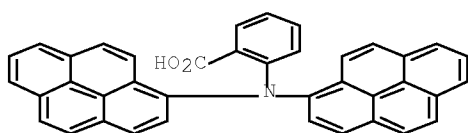
ED Entered STN: 12 Nov 1994
 IT 149685-55-2
 RL: PRP (Properties)
 (electron-transport layers from, in white light-emitting
 electroluminescent devices)
 RN 149685-55-2 HCAPLUS
 CN 1-Pyrenamine, N,N'-[[2,2,2-trifluoro-1-(
 (trifluoromethyl)ethylidene)di-4,1-phenylene]bis[N-(4-
 methylphenyl)- (9CI) (CA INDEX NAME)



L67 ANSWER 41 OF 43 HCAPLUS COPYRIGHT 2008 ACS on STN
 ACCESSION NUMBER: 1994:65542 HCAPLUS Full-text
 DOCUMENT NUMBER: 120:65542
 ORIGINAL REFERENCE NO.: 120:11657a,11660a
 TITLE: Electroluminescent element
 INVENTOR(S): Kawamura, Fumio; Ota, Masabumi; Onuma,
 Teruyuki; Sakon, Hirota; Takahashi, Toshihiko;
 Yamaguchi, Takehito; Sasaki, Masaomi
 PATENT ASSIGNEE(S): Ricoh Co., Ltd., Japan
 SOURCE: Jpn. Kokai Tokkyo Koho, 16 pp.
 CODEN: JKXXAF
 DOCUMENT TYPE: Patent
 LANGUAGE: Japanese
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 05021165	A	19930129	JP 1991-198895	1991 0712
PRIORITY APPLN. INFO.:				1991 0712

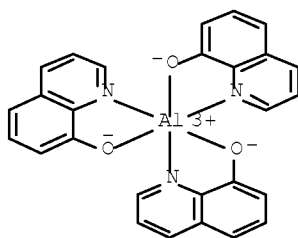
ED Entered STN: 05 Feb 1994
 IT 152008-51-0
 RL: PRP (Properties)
 (anodes treated with, for electroluminescent devices)
 RN 152008-51-0 HCAPLUS
 CN Benzoic acid, 2-(di-1-pyrenylamino)- (CA INDEX NAME)



L67 ANSWER 42 OF 43 HCAPLUS COPYRIGHT 2008 ACS on STN
 ACCESSION NUMBER: 1993:459357 HCAPLUS Full-text
 DOCUMENT NUMBER: 119:59357
 ORIGINAL REFERENCE NO.: 119:10511a,10514a
 TITLE: Thin-film organic electroluminescent device
 INVENTOR(S): Onuma, Teruyuki; Ota, Masabumi; Sakon, Hirota;
 Takahashi, Toshihiko; Yamaguchi, Takehito
 PATENT ASSIGNEE(S): Ricoh Co., Ltd., Japan
 SOURCE: Jpn. Kokai Tokkyo Koho, 12 pp.
 CODEN: JKXXAF
 DOCUMENT TYPE: Patent
 LANGUAGE: Japanese
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 04334894	A	19921120	JP 1991-135448	1991 0510
PRIORITY APPLN. INFO.: JP 1991-135448				1991 0510

ED Entered STN: 07 Aug 1993
 IT 2085-33-8
 RL: PRP (Properties)
 (blue-yellow emitting, organic carrier-injection
 electroluminescent devices containing)
 RN 2085-33-8 HCAPLUS
 CN Aluminum, tris(8-quinolinolato-κN1,κO8)- (CA INDEX
 NAME)

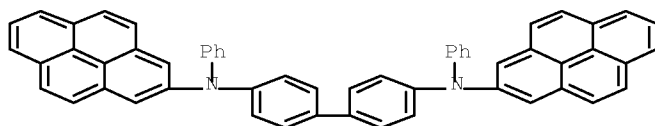


L67 ANSWER 43 OF 43 HCAPLUS COPYRIGHT 2008 ACS on STN
 ACCESSION NUMBER: 1992:416860 HCAPLUS Full-text
 DOCUMENT NUMBER: 117:16860
 ORIGINAL REFERENCE NO.: 117:2955a,2958a

10549801-265764-EIC 1700 SEARCH

TITLE: Electroluminescent device with organic
 electroluminescent medium
 INVENTOR(S): VanSlyke, Steven A.; Tang, Ching W.; O'Brien,
 Michael E.; Chen, Chin H.
 PATENT ASSIGNEE(S): Eastman Kodak Co., USA
 SOURCE: U.S., 12 pp.
 CODEN: USXXAM
 DOCUMENT TYPE: Patent
 LANGUAGE: English
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 5061569	A	19911029	US 1990-561552	1990 0726
CA 2046135	A1	19920127	CA 1991-2046135	1991 0703
CA 2046135	C	19961210		
JP 05234681	A	19930910	JP 1991-186312	1991 0725
JP 2851185	B2	19990127		
EP 468528	A1	19920129	EP 1991-112621	1991 0726
EP 468528	B1	19950621		
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE				
PRIORITY APPLN. INFO.:			US 1990-561552	A 1990 0726
OTHER SOURCE(S): MARPAT 117:16860				
ED Entered STN: 11 Jul 1992				
IT 139255-24-6				
RL: PRP (Properties)				
(electroluminescent devices with hole-transporting layers from)				
RN 139255-24-6 HCAPLUS				
CN [1,1'-Biphenyl]-4,4'-diamine, N,N'-diphenyl-N,N'-di-2-pyrenyl-				
(9CI) (CA INDEX NAME)				



10549801-265764-EIC 1700 SEARCH

FULL SEARCH HISTORY

=> d his nofile

(FILE 'HOME' ENTERED AT 15:15:06 ON 22 JUL 2008)

FILE 'HCAPLUS' ENTERED AT 15:16:53 ON 22 JUL 2008

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SEL RN

FILE 'REGISTRY' ENTERED AT 15:18:52 ON 22 JUL 2008

L2 13 SEA ABB=ON PLU=ON (27973-29-1/BI OR 4496-49-5/BI OR
494834-22-9/BI OR 55389-75-8/BI OR 5650-10-2/BI OR
63451-41-2/BI OR 722498-84-2/BI OR 764657-23-0/BI OR
764657-24-1/BI OR 764657-25-2/BI OR 764657-26-3/BI OR
764657-27-4/BI OR 764657-28-5/BI)
ACT GAR801REG/A

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L4 STR
L5 782 SEA SUB=L3 SSS FUL L4

ACT GAR801REGA/A

L6 (18405)SEA ABB=ON PLU=ON 3593.5/RID
L7 STR
L8 (782)SEA SUB=L6 SSS FUL L7
L9 STR
L10 199 SEA SUB=L8 SSS FUL L9

ACT GAR801REGB/A

L11 (18405)SEA ABB=ON PLU=ON 3593.5/RID
L12 STR
L13 (782)SEA SUB=L11 SSS FUL L12
L14 STR
L15 257 SEA SUB=L13 SSS FUL L14

ACT GAR801REGC/A

L16 (18405)SEA ABB=ON PLU=ON 3593.5/RID
L17 STR
L18 (782)SEA SUB=L16 SSS FUL L17
L19 STR
L20 748 SEA SUB=L18 SSS FUL L19

D SAV

FILE 'LREGISTRY' ENTERED AT 15:22:17 ON 22 JUL 2008

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D QUE STAT L15
D QUE STAT L20
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L22 1 SEA SUB=L5 SSS SAM L21
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L24 STR L21

FILE 'HCAPLUS' ENTERED AT 15:32:18 ON 22 JUL 2008

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ACT GAR801HCP/A

10549801-265764-EIC 1700 SEARCH

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L28 (      359)SEA ABB=ON  PLU=ON  L27
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      MY<2004 OR REVIEW/DT
L32      81 SEA ABB=ON  PLU=ON  L30 AND L31
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L33 (      18405)SEA ABB=ON  PLU=ON  3593.5/RID
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L38      STR
L39 (      199)SEA SUB=L35  SSS FUL  L38
L40 (      71)SEA ABB=ON  PLU=ON  L39
L41 (      47)SEA ABB=ON  PLU=ON  L40 AND L37
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L46 (    1474106)SEA ABB=ON  PLU=ON  73/SC,SX
L47      QUE ABB=ON  PLU=ON  PY<2004 OR PRY<2004 OR AY<2004 OR
      MY<2004 OR REVIEW/DT
L48      STR
L49 (      199)SEA SUB=L45  SSS FUL  L48
L50      STR
L51 (      257)SEA SUB=L45  SSS FUL  L50
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L53 (      31)SEA ABB=ON  PLU=ON  L52
L54 (      30)SEA ABB=ON  PLU=ON  L53 AND L47
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L56      118 SEA ABB=ON  PLU=ON  L5/P
L57      80 SEA ABB=ON  PLU=ON  L56 AND L31
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L59      19 SEA ABB=ON  PLU=ON  L58 AND L57
L60      33 SEA ABB=ON  PLU=ON  L42 OR L55 OR L59
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L61      37 SEA ABB=ON  PLU=ON  L23
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L62      31 SEA ABB=ON  PLU=ON  L61 AND L47
L63      8 SEA ABB=ON  PLU=ON  L62 AND L58
L64      38 SEA ABB=ON  PLU=ON  L60 OR L63
L65      593618 SEA ABB=ON  PLU=ON  "ELECTROLUMINESCENT DEVICES"+MAX/CT

L66      79 SEA ABB=ON  PLU=ON  L32 AND L65
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